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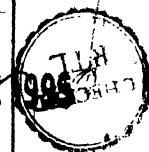
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MANAGEMENT IN FAMILY LIVING

BY

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**TO
OUR PARENTS**

**LUTHER URBAN NICKELL
LENA WHEELER NICKELL**

**ROBERT JAMES WATT MUIR
JULIA FULLER MUIR**

PREFACE

This book has been written for students of homemaking in colleges and universities and for homemakers who are seeking a better understanding of their management problems.

The authors have attempted first to show the place of management in homemaking, and second to develop methods of analyzing the management problems in family living. Factual information is included that seems essential for the intelligent management of certain resources, such for instance as the explanations of credit and life insurance, the tables on American family incomes and expenditures, and the material concerning the selection of houses and the methods of financing home ownership.

The past decade has seen a growing clarification of home management as a part of the curriculum in homemaking education. The development of new areas of interest, such as consumer and family economics, child development and family relations, has caused some confusion about the place and scope of home-management teaching; but it seems obvious that the findings in these fields take a logical place beside those of nutrition, physics, bacteriology, and other sciences, and add that much enrichment to the home-management curriculum.

This book is divided into six parts, each dealing with the managerial problems of the various aspects of family living. Part I shows the place of management in homemaking and describes the functions and characteristics of the effective home manager. In Parts II and III certain management problems connected with three vital family resources—time, energy, and income—are analyzed. Parts IV and V suggest some of the management problems involved in housing, feeding, and clothing the family, furnishing and equipping the home, operating the household, maintaining health, and providing recreation. Part VI briefly outlines some methods for teaching home management both in the home and in the school.

In preparing the text it has been necessary to draw freely from many sources. Acknowledgment is made to those authors and publishers mentioned in the text who have generously permitted the use of their materials.

To five groups of people—the teachers who participated in the

conferences of Management Teaching at the College Level in 1934, 1935, and 1937; graduate and undergraduate students in home management at the University of Illinois and Iowa State College; students in summer classes at Columbia University; and those homemakers who have given helpful suggestions—is due a deep debt of gratitude. We wish especially to express our appreciation to those who read certain chapters of the manuscript during its preparation and gave much valuable criticism.

It may be of interest to friends and students to know that the chapters in Part I, the "Place of Management in Homemaking and Family Life," were written jointly; the material on finance management, food and clothing management, operating costs of the household, family health and recreation management, and management learning experiences for students of home management was prepared by Paulena Nickell. The chapters on time and energy management, housing management, and the selection of furnishings and equipment were prepared by Jean Muir Dorsey.

P. N.
J. M. D.

AMES, IOWA
URBANA, ILLINOIS

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PART I

**THE PLACE OF MANAGEMENT
IN HOMEMAKING AND FAMILY LIFE**

CHAPTER I

A PHILOSOPHY OF HOMEMAKING

There are as many ways of meeting life as there are men and women; these ways are always changing. There are as many philosophies of homemaking as there are men and women homemakers; these philosophies change and broaden as life is enriched by knowledge and experience. A family's philosophy, or outlook upon life, forms a basic guide to the conduct of both the individual members and the group, and from this philosophy grow the goals for homemaking and family life. Many of the goals stretch out into the remote future; some are destined for immediate attainment. Far or near, they act as stimuli to human behavior, motivating and conditioning the life of the individual and the group.

Homemaking extends over the part of human experience that centers around life with another individual or with a group of individuals in a home. This experience in family living consists of the sharing of resources in common, the developing of individual personalities, the attaining of satisfactions through shared group experiences, and the contributing to and taking part in the social responsibilities which make up the societal setting of the family group.

Since the goals of each family as well as their methods of attaining these goals are to a large extent determined by the family's philosophy, we need to know something of the source and growth of that philosophy.

GROWTH OF A PHILOSOPHY OF HOMEMAKING

Philosophy begins in experience. In every human experience there is the beginning of a philosophy. Everyone has some kind

of attitude toward life and the world in which he lives. One may be happy or unhappy; interested in life or discontented with life; anxious to accomplish certain goals or satisfied to drift along aimlessly; or his attitudes may be somewhere between these extremes. Every person displays different attitudes or series of attitudes at different times.¹

Thurstone defines attitudes as "the sum total of inclinations, feelings, prejudices, ideas and convictions about any specific topic."²

According to Thomson, "Attitude may be regarded as a composite of . . . heredity, experience, and present purpose. It is a conscious and unconscious set or readiness of the mind to react to stimulus in a given way. The attitude seems headed for an objective, it implies relationship to an object or situation, it is expectant. An attitude is the result of habitual modes of conduct and in turn becomes a determiner of future conduct. . . ."³

When a home is started, two sets of attitudes—those of the two individuals founding the home—will exist. From these will arise a third or shared set of attitudes. The individual attitudes are the outgrowth of past experience and the system of behavior or point of view of the family from which each has come. The shared or integrated attitudes are the result of the associations and relations of the individuals with each other. These three sets of attitudes form the beginnings of the new family's philosophy.

A philosophy, as has been stated, is a point of view or outlook upon life which guides the behavior of the individual or the group. Every normal person has some philosophy of life although he may not think of it as such. Some persons are able to develop their philosophy out of their own experiences in dealing with the problems of life; others willingly accept a ready-made philosophy imposed by traditions and customs; still others drift along the line of least resistance or accept a point of view

¹ J. K. Hart, *Inside Experience*, New York: Longmans, Green and Company, 1927, p. 17.

² L. L. Thurstone, "Attitudes Can Be Measured," *American Journal of Sociology*, Vol. 33 (January, 1928), pp. 529-554.

³ M. K. Thomson, *The Springs of Human Action*, New York: D. Appleton Company, 1927, p. 166.

through force of circumstances.⁴ Thus it will be seen that the philosophy of each family is determined largely by the native dispositions of the two homemakers, their total experiences, educational background, habits, and physical and social heritage. In a large majority of families a philosophy of homemaking is a gradual, unconscious development.

HUMAN VALUES IN HOMEMAKING

The possession of a wholesome philosophy by each of the heads of a family goes far toward enabling them to create a successful home. It helps them to recognize the true values inherent in their common experiences and to build their own values of family living.

Values grow out of human interests and desires. They are the products of the interaction between an individual and some object or situation in his environment.⁵ With each wish an individual pictures the thing he wants and judges it on the basis of the satisfaction anticipated.

Throughout life we are continually passing judgment, either our own or someone else's, upon our experiences and the things we desire, calling them good or bad according to our own individual standards. Dewey and Tufts point out that, "In its popular sense, *all* judgment is estimation, appraisal, assigning value to something; a discrimination as to advantage, serviceability, fitness for a purpose, enjoyability, and so on."⁶

In choosing the course that we shall pursue, the line of thought that we shall take, the duties we shall perform, we are constantly weighing values. Life is a continuous process of choice-making—of sacrificing one value for another. Out of this life of choice grows one's system of values, which is constantly being modified and changed with new experiences.

What are some of these human values which play such an important role in the lives of people?

⁴ *Ibid.*, p. 413.

⁵ H. H. Titus, *Ethics for Today*, New York: American Book Company, 1936, p. 264.

⁶ John Dewey and James H. Tufts, *Ethics*, New York: Henry Holt and Company, 1938, p. 290.

According to Parker, the major interests and values which govern human conduct are: (1) love, in its broad sense and in its various forms, as sex love, parental love, friendship, generic love (love for an individual of one's kind), community love (love for an organized group), and ideal love (love of the ascetic for his cause); (2) health or physical well-being; (3) comfort, the interest in making life as pleasant and agreeable as possible; (4) ambition, the interest or desire for success in life; (5) knowledge or wisdom, innate or learned; (6) efficiency or technological interest, the efficient making and using of things; (7) play, creative imaginative activity; (8) art; and (9) religion. The first six of these are values of real life; the last three are values of imagination.⁷ All are interdependent and intimately related.

Value may be both intrinsic and instrumental. An intrinsic value is one that is judged worthy of being sought for its own sake. It is an end in itself. An instrumental value is one that is sought as a means to the attainment of other values. It is of purely instrumental worth. The human values—love, health, comfort, ambition, knowledge, play, art, and religion—possess both aspects. They are all in some measure good in themselves and in some measure they are means to other values. The technological value, however, is mainly instrumental. It is sought primarily as a means to other ends. Such things as money, food, clothing, shelter, tools, and equipment have instrumental value mainly.

The technological interest includes both the efficient making and using of things or tools as means to ends, as utilities. In homemaking, management in the technological sense is employed in using means to ends. These means include both the human and material resources of the family which are used to satisfy both individual and family desires. The efficient management of these means leads to the realization of the other values of life.

The values which two individuals share in starting a home and which they attempt to realize as members of a family and as parents of children are highly important, since they will

⁷D. W. Parker, *Human Values*, New York: Harper and Brothers, 1931, p. 46.

determine the pattern of human relations within the home. In all homes, the life of each individual is so interrelated with the lives of the others that the values which are held and sought by any member are reflected in some degree in the lives of the others. The creating of conditions under which family values may be realized and shared is one of the roles of management in family living.

The analysis presented on pages 6 and 7 suggests some of the conditions under which these governing interests and values can be realized in everyday living.

Homemakers in meeting the managerial problems of their homes are faced constantly with practical situations which require decision and action. To arrive at decisive choices that will not later be regretted, thought and deliberation are required.

In the solution of any problem, homemaking or otherwise, the process of choice-making proceeds along definite lines. In approaching the problem we unconsciously and spontaneously make certain mental selections: we like one thing and dislike another, or we may choose one thing and reject another. Preferences of this kind always precede judgment of comparative values.

When a choice must be made between two competing desires or wants, there is likely to be a period of doubt and hesitation in the mind of the choice-maker. This leads to deliberation, or the weighing of values, to discover and choose the better course under the given circumstances. Only through such deliberation can we decide which of the two conflicting things it is that we want.⁸

Dewey and Tufts state that "Deliberation is actually an imaginative rehearsal of various courses of conduct. We give way, *in our mind*, to some impulse; we try, *in our mind*, some plan. Following its career through various steps, we find ourselves in imagination in the presence of the consequences that would follow: and as we then like and approve, or dislike and disapprove, these consequences, we find the original impulse or plan good or bad. . . . The advantage of a mental trial, prior to the overt trial (for the act after all is itself a trial, a proving

⁸ Dewey and Tufts, *op. cit.*, pp. 316-317.

**HUMAN VALUES IN THE AREA OF HOMEMAKING AND SOME OF
THE CONDITIONS UNDER WHICH THEY ARE REALIZED**

<i>Human Values</i>	<i>Some of the Conditions Which Lead to the Realization of Human Values</i>
Love	Free communication, free interexchange of thoughts, feelings, and ideas in the family group
	Loyalty, based on justice and integrity
	Companionability and comradeship
	A cooperative spirit
	Sympathetic understanding and sharing of interests of the larger group
Health	Understanding affection
	Appreciation that a minimum of health is necessary for the realization of all other values
	Understanding of the relationship between fatigue and mental and physical health
Comfort	Use of goods and services to make life as pleasant and agreeable as possible
Ambition	Recognition of success as a major motivating factor in human accomplishments
	Appreciation of the importance of attitude in success or failure
	Recognition that the choice of work suited to capacities of the individual is a factor in success
Knowledge and wisdom	Appreciation that knowledge is a means to all values
	Recognition of the importance of individual resourcefulness
	Sound judgment in dealing with facts in their practical relations to life and conduct
	Willingness to recognize the realities of life, face their implications, and intelligently resolve their conflicts
	Appreciation and understanding of the needs, interests, and individual differences of family members
	Appreciation of the importance of the optimum development of each individual family member
	Recognition of the need for growing freedom as children grow to maturity

HUMAN VALUES IN THE AREA OF HOMEMAKING—(Continued)

<i>Human Values</i>	<i>Some of the Conditions Which Lead to the Realization of Human Values</i>
	Understanding of the pleasure and satisfaction in creative work and expression
Technological interest or efficiency	Recognition of the importance of skill in purposeful activities Appreciation of efficient management and work as a means to effective homemaking and to all other values Appreciation of social and economic security Willingness to adjust to and enjoy the standard which income permits
Play	Recognition of the value of relaxation and freedom gained through creative imaginative activity Appreciation of the wise and constructive use of free time Appreciation of good sportsmanship
Art	Consciousness and appreciation of beauty in its many forms Appreciation of the stimulation and satisfaction which results from all aesthetic experiences
Religion	Recognition of the role religion plays in unifying man's aims and purposes of life Appreciation of the sense of security religion provides

of the idea that lies back of it), is that it is retrievable, whereas overt consequences remain. They cannot be recalled. Moreover, many trials may mentally be made in a short time.”⁹

This process of choice-making is briefly charted on the following page.

Many situations in the home which call for deliberation and judgment have elements in common, and the values found in them resemble one another. Thus experience gained in meeting one problem may be helpful in making decisions regarding another. Out of this fund of experience points of view are gradually built up which become useful in judging values in many situations.

⁹ *Ibid.*, p. 303.

THE PROCESS OF CHOICE-MAKING¹⁰

Prior to all choice-making we make spontaneous mental selections regarding everything we want. We prefer one thing to another.



When a choice must be made these conflicting preferences hold each other in check. As a result we hesitate in making a decision.



Hesitation becomes deliberation as we weigh and compare the values to be derived from each course or choice.



Finally a choice or preference emerges which is based on consciousness of the values which deliberation has helped us to see. We decide which of the two conflicting things we want.

OBJECTIVES OR GOALS OF HOMEMAKING

Throughout life each individual and each family is always seeking some objective or goal, always placing a value on some attainment or some acquisition in the immediate or more remote future. In every home there are the individual goals of the individual members of the family as well as goals shared in common by the family. Each goal calls up mental pictures of events which the individual or family expect, want, and will work to bring about.

Many of these goals are immediately attainable. Some are held in view for attainment in the near future. Others are sought over a long period of life and consequently are ever present. The immediate and short-time goals that each individual seeks throughout each day are numberless. Not all these minor goals are equally important, and many are used only as a means of achieving certain long-time or major goals. For instance, such objectives as the development of special skills, efficient methods of work, or reasonable and desirable standards for food, clothing, or housing may lead to the realization of the more distant or major goals.

The major goals that are created and sought by each family naturally grow out of its own environment and experience. Although the goals of each family must of necessity differ in many

¹⁰ Adapted from Dewey and Tufts, pp. 316-317.

respects from those of all other families, the major and ultimate goals of homemaking may be stated as follows:

1. Optimum physical and mental health for each member of the family.
2. Optimum development of the individual members of the family.
3. Satisfying family life.
4. Wholesome and useful relations with other individuals and groups both within and outside the home.

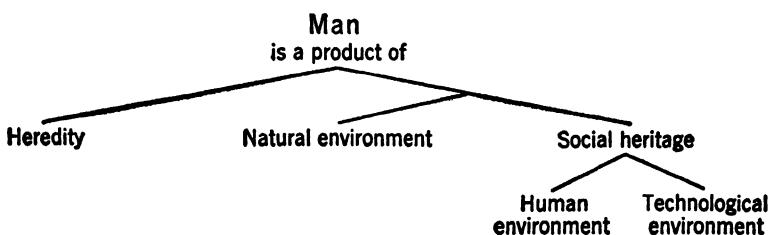
As ideas of value change and the family's philosophy grows and takes new form, new goals will be created and accepted and ways and means devised to realize them.

CHAPTER II

CHANGES IN CIVILIZATION THAT HAVE AFFECTED THE FAMILY AND THE HOME

Every individual born into the world is endowed with certain natural equipment or characteristics which he inherits through his parents. Because he is genetically a new combination, he is different from each of his parents and from every other individual. Besides this mental and physical inheritance, every individual at birth inherits a natural environment. This heritage includes the air he breathes, the water, land, vegetation, minerals, and animals found on the earth. Every individual is also born into a social heritage, a human and technological environment, which is a product of man's efforts and human society. This social heritage consists of language, customs, morals, religions, science, the arts, philosophies, social institutions, and technological equipment. The environment into which each individual is born and in which he lives and develops makes him different from every other individual. Each individual as we see and know him is a product of two factors, heredity and environment.¹

These facts can be represented diagrammatically as follows:



Throughout life there is a continual interaction between the individual and his environment. The forces of environment act upon the individual; and the individual acts upon his en-

¹ W. F. Ogburn, *Social Change*, New York: McGraw-Hill Book Company, 1939, pp. 1-6.

vironment. From the beginning man had to find ways for dealing with the effect of these forces upon himself. Since he was unable to do this with his own physical equipment, he was forced to create tools of various kinds to assist him in his struggle. Out of this struggle man has developed a complex technological environment which has become one of the main parts of his total environment. Man today may be said therefore to stand in the midst of a three-dimensional environment: natural, human, and technological.

As human needs and desires change with a changing civilization, new tools are created and new methods are devised for meeting and satisfying these needs and desires. In this process man gains more and more control of his environment. The shelter and protection provided by our homes, the equipment that enables us to produce and prepare food and to conserve time and energy, the public and private conveyances such as trains and automobiles that provide rapid and easy travel to and from places, are all examples of man's increased control of environment.

Group living was another means used by early man in his effort to control the forces in his environment. As a result the family has taken an important place in man's environment and has become a major social institution.

THE FAMILY AND THE HOUSEHOLD

The family may be defined as that social group (or unit) of people living intimately together under one roof, and dependent upon the same income stream. This group commonly consists of husband and wife, or father, mother, and child or children, although sometimes it includes also a dependent relative supported by the major breadwinner. So conceived, the family is a nucleus of close personal relationships. The human values which are shared in this closely knit association are of fundamental importance in the development of the individuals that compose the group.

The family as a social institution has always fulfilled certain functions. The affectional function, which is of primary importance, is the only one retained wholly in the modern family.

Certain aspects of other functions often named—economic, religious, protective, educational, and recreational—have been taken over by other social institutions. Much of the disorganization in modern family life may be due to the partial withdrawal of these five functions from family responsibility. Undoubtedly the shift has robbed family members of much creative experience; and from the loss of this experience stem many of the maladjustments and personality problems in the present-day home.

The household, as differentiated from the family, consists of the nonfamily personnel and the materials making up the home environment. It includes those elements of natural and of technological environment that gravitate around man and woman and come under their control in the home. The conduct of personal life and the relationship among members of the family group take place within a background of materials—the house, the surroundings, the equipment, tools and furnishings—and of persons not members of the intimate group. These nonmembers may be relatives living in the home, guests, paid help, or others temporarily attached to the group.

DIFFERING OPINIONS ON PRESENT POSITION OF THE FAMILY

Much has been written in recent years of the breakdown of the family. Certain students of the problem believe that the family is an outmoded institution and that the increasing restlessness and revolt against conventional marriage is evidence of this fact. Some maintain that mankind has already passed through two stages, the clan and the family, and is now in a third, the individual stage.

Others, however, hold the reverse opinion and feel that, although there has been a marked change in the family, the evidence does not indicate that complete disintegration will occur. Nimkoff points out that the extremists on both sides undoubtedly go beyond the facts. He cites the evidence of the increasing ratio of married people in the adult population and indicates that the family is in little danger of disappearing. He believes that the trend toward smaller families, often used as an argument that the family is declining, shows that the family is changing but not necessarily that it is disintegrating. This

trend suggests that marriage without children will become more common as time goes on. The interest in the personal relationship between husband and wife is increasing, and additional emphasis is being placed on companionship, loyalty, and understanding affection. It may therefore be expected, Nimkoff asserts, that marriage in the future will be based largely upon affection and personal relationships.²

This view is likewise advanced by Groves and Ogburn. In their discussion of the future of marriage and the family, they state that "There can be no doubt from the study of the evolution as it is now shaping itself, that the element that will emerge and receive greatest emphasis will be that subtle value which we call affection."³

TRENDS IN OUR CHANGING CIVILIZATION

What has happened in our changing civilization that has affected the home and family life? According to Kilpatrick, there are three important trends in modern⁴ life which help to explain the changes taking place.

First, there is a changed mental attitude toward external authority—the rules and rights dictated by outside agencies, such as the church or conventional society. In modern life external authority is no longer accepted with the validity that it once was. When man began to doubt the word of the philosopher and the mandates and rules of the church, he began to test phenomena by the application of science and no longer accepted superimposed authority passively. Where once he felt humble in the sight of the supernatural or the superior intellect, he later began to feel his own power. When this change in mental attitude began to permeate the consciousness of the common man, external authority began to break down.⁵

² M. F. Nimkoff, *The Family*, Boston: Houghton Mifflin Company, 1934, pp. 241-252.

³ E. R. Groves and W. F. Ogburn, *American Marriage and Family Relationships*, New York: Henry Holt and Company, 1928, p. 16.

⁴ Kilpatrick would place the beginning of "The Modern" at the time when man began to test thought.

⁵ W. H. Kilpatrick, *Education for a Changing Civilization*, New York: The Macmillan Company, 1926, pp. 16-21.

Industrialization is the second great trend that has altered the economic and social structure of the family. The machine, with its accompanying mass production, has changed the family from a group that was relatively self-sufficient into one that is highly dependent on the general social group. Advances in methods of communication have made possible a rapid spread of ideas and information. Production of goods is no longer for consumption only, but largely for exchange. Inventions, coupled with a wide variety of natural resources, have made for a rapidly growing and diversified industrial system. Industrialization has led to social integration with more and more interdependence within the social group.

The third trend which affects home and family life is the development of the democratic ideal, "that respect for man which we call democracy."⁶ As man became aware of his own power, his self-respect increased and he became important in his own environment. Because he felt his power and self-importance, he asserted his right to some degree of freedom of action and expression. Democracy, as conceived here, is a way of life, an ethical concept, and not a program of action or governmental organization.

The three trends—changed mental approach, technological advance, and recognition of the importance of man himself—show the various forces that are operating to bring about the changes in civilization which change family life.

CHANGED ATTITUDE TOWARD AUTHORITY REFLECTED IN THE HOME

The changes which have taken place in society have brought a changed attitude toward authority in the home. Literally, authority means the power or right to act or to enforce action. This power was external in the old order. With the extension of tested thought and with the growing realization of the importance of the individual, the power of external authority has diminished and in its place has arisen an increase in the power of individuals to direct their own actions. This power of self-direction can be called *internal authority*.

⁶ *Ibid.*, pp. 26-27.

A changed attitude toward authority is often the cause of conflict and maladjustment in many homes. One frequently hears alarm expressed at the freedom allowed the "modern generation" from early childhood through youth. Children no longer obey their parents, it is said, and they are not respecters of law. The claim is made that there has been a breakdown in authority—and so there has been. But the breakdown has been in the external or superimposed authority, and not enough time has passed for a well-defined internal authority to be developed in most families.

In the family, internal authority appears as a code of behavior, built up from within the group. It is based upon understanding and upon a sense of justice. It is that force which causes the members of a family to act as they do, not because someone so commands, but because in the light of the welfare of all it is the best way to act.

The change from external to internal authority in the home is well illustrated by the child who no longer obeys his father or mother just because one or the other says so, but because through his own reasoning he feels he should so act. He is then acting in accordance with the will of his parents because he understands why he should do so. A convincing answer to his request for a reason is necessary to the development of internal authority on the part of a normal child. Parents do not always find it easy to stop and explain the reason for every act the child is called upon to perform, for this requires time. Explanation is not always necessary, however, if the child's confidence has been gained through a large number of understood experiences. Internal authority can be built up from early childhood as the child develops in age and judgment.

All gradations of control are found in present-day homes. Some are governed by authoritarianism of the most medieval type. In other homes, motivated and guided by the most recent research of child psychology and teachings in parental education, control is primarily by internal authority. The home in the present era is still transitional. We are too near the dominating Victorian period for the home to have entirely escaped the influence of the Victorian traditions of external authority; we are not

far enough into the era guided by research for the members in the home to have developed into independent individuals governed mainly by internal authority. In the final analysis, the homes of lasting influence will be those in which members are free to make their own decisions guided by intelligent control.

INFLUENCE OF INDUSTRIALIZATION ON THE HOME

Perhaps the greatest change in the home has been effected by the growing industrialization in modern society. In the main the modern home is a consuming instead of a producing unit. The content of the goods and services used in the conduct of family life is different. Family members have gone out of the home into industry, thus causing a decentralization of the family and a changed group life. Both mass production in the factory system and decentralization of family members have had certain negative effects upon the individual's development. With these changes, problems of management in the home have vastly changed.

THE HOME AS A CONSUMING UNIT

With the mass factory production of goods for exchange, and its accompanying concentration of population in large urban centers, the modern home has become a consuming rather than a producing unit. Goods are bought either in a completed form ready for immediate consumption or partially prepared so that only a small additional input of production is needed for their completion, and they are bought for cash. The homemaker, instead of being primarily the director of home production for home use, has been forced to become a director of consumption, or a chooser of goods instead of a producer of goods.

As purchasing agent for the family, the modern homemaker pays for the goods from the family treasury, using the family money income. In addition to the choosing of a large portion of the goods the family uses, the homemaker helps the family in making decisions regarding the allocation of money to the various needs. In so doing, she frequently finds that she is called upon not only to help choose what to buy, but also to help decide upon the method of satisfying the wants. For example, the

high-school daughter has two clothing needs. The one is for church or street and the other for informal parties. Shall two dresses be purchased, or can one be found which will be a dual-purpose garment? Shall the dress be bought ready-to-wear or shall it be made at home? The greater amount of time and energy needed if the dress is made in the home must be evaluated. The use of human energy constantly comes into the picture of choice-making and cannot be overlooked as a part of the consumer problem.

In feeding the family, the choice of a given food is also complicated since the selection must often be made from a wide variety of qualities or prices, or both. The array of decisions resulting from industrialization brings to the home a responsibility of a very different type from former ones, in the getting and using of goods.

In the era when the goods consumed in the home were produced mainly in the home, training for homemaking took place in the home. The children, chiefly the girls, received their training while taking part in the productive processes, through working with the "mother-teacher," learning while doing, and through social lore passed from mother to children. Frequently in the modern home the homemaker finds herself untrained for her job; she has neither sufficient experience nor information to enable her to carry the new responsibility as director of consumption. Home production, where still carried on, often is unlike that in homes of the previous generation.

CHANGED LEVEL OF CONSUMPTION

American industrialization and improved modes of communication have made available a tremendous stock of goods from which people may choose in order to satisfy their wants. The active and potential wants of individuals are constantly changing, when they are confronted with a wide variety of goods from which to choose. Thus the level of consumption or "manner of living" changes.

Kyrk has shown the level of consumption or manner of living to be a "description or inventory of the actual commodities, in some way valued and measured, which flow through or are used

by a consuming unit, usually a household, during a given period."⁷ Level of consumption is not synonymous with standard of living, although it is its basis. A standard of living is a psychical fact. "It is an attitude toward, a way of regarding, or of judging, a given mode of living. It is a subjective view of certain objective facts."⁸ The manner or level of consumption comprises these objective facts.

Change has occurred in the American standard of living. "The level" or content of the inventory of commodities used by the majority of the people has improved. This change in content is referred to by many writers when speaking of "the improvement of" a standard of living.

Advertising, a product of industrialization, is continually assuring the buyer that changing his purchases is the means of keeping up to date, "of being different." Advertising has recognized the importance placed upon personal gratification and so makes definite appeal to subjective evaluations which emphasize personal appearance and prestige. Hence, advertising has accelerated the drift toward constant change in the manner of living and, together with the increased stock of goods, has made intelligent choice-making increasingly difficult for the home-maker-consumer.

DECENTRALIZATION OF THE FAMILY

Another effect of industrialization is the decentralization of the family, which has in turn changed the character of family life. As a "mother-teacher" the woman could formerly direct the members of the family toward a common goal. Now she finds herself the leader of a group with diverse interests and activities. She must, therefore, have an understanding of and an interest in many things outside as well as inside the home. As one woman said, "I must even know who pitched the best game in the World Series, and I frequently have to listen to a game over the radio in order to recite it play by play to my husband and son when they can't hear it." Another woman in speaking of her responsi-

⁷ Hazel Kyrk, *Theory of Consumption*, Boston: Houghton Mifflin Company, 1923, p. 174.

⁸ *Ibid.*, p. 175.

bilities told how she listened to the market reports over the radio and kept a record of the change in prices paid for certain products, in order that her husband might be informed of price trends.

So long as the home remained the center of production there was important work to be done which demanded many hands, and because of this a premium was placed upon large families. In the modern home large families would mean more mouths to feed without an accompanying increase in means of providing food. Great reduction in size of families has been the natural result of the decentralization of the family under the factory system.

NEGATIVE EFFECTS UPON INDIVIDUAL DEVELOPMENT

The transfer of people and productive processes from the home to the factory or the office has had, among others, two outstanding negative effects upon individual development of both men and women. The first is the depressing effect of factory routine upon individual initiative and imagination, and the second is the lack of opportunity for creative activities which play such an important part in an individual's development.

With improved technology and with the application of the principles of scientific management in factories and offices, there has been a tendency for a period of years to place greater emphasis upon efficiency in operation than upon the welfare and development of the worker. The routinizing and speeding up of operation in many factories has frequently tended to reduce the worker to a mere automaton. As the belt goes by, all he has to do is turn the screw. His work requires little thought and provides no inspiration. This type of work-life is inevitably reflected in the social life of the worker, particularly in his personal relationships in the family circle.

DEMOCRACY REFLECTED IN THE HOME

With the rise of the democratic ideal in social philosophy the individual member of the family has become more important. The place of women and children is vastly changed in the social order. A survey of the history of the home shows women

and children consistently to have risen in social importance. In the modern home the woman has equality with the man. Women are free to choose the kind of life they wish to live, either marriage or a career or marriage and a career. They may choose marriage with or without children and be socially acceptable in either case. In short, a woman may consider her own personal desires either aside from or in connection with those of the family group.

In the modern home the child is considered a person with rights of his own instead of a piece of property to be used in barter. In the colonial and pioneer home the child was considered an economic asset. In the modern home he may be a social asset, but in an exchange economy he is a liability instead of an asset. He is recognized as a member of the family group whose interests and desires are to be considered quite as much as, and in many cases more than, those of the adults.

MANAGEMENT IN THE CHANGING HOME

The changes in modern life are reflected in the management of the home. The changed attitudes toward authority and toward the place of women and children in society have brought many new problems in family relationships and in the use of family resources. New knowledge is needed by homemakers if these problems are to be solved with satisfaction to all. The change of the home from a producing to a consuming unit not only increases the managerial problems concerning the use of human and material resources of the family but also requires different methods of meeting the problems.

The homemaker and her family instead of being producers of goods are now choosers and purchasers of goods. Products that were once grown or made at home for home consumption must now be bought outside with the family income. As a result the present-day family is forced to consider its needs carefully and to choose wisely if it wishes to get the greatest return from its income.

In the modern home, the intelligent use of resources is measured not only by the satisfaction obtained but also by the effect upon the development of family members and upon social wel-

fare. The opportunity for young people to help in deciding how family resources are to be used provides a learning experience which cannot well be secured outside the home. Family participation in decisions about resources is essential for successful management in the modern home.

To aid in the solution of managerial problems in the home, science has both contributed information and been instrumental in developing improved technological equipment. Psychology, sociology, and philosophy have furnished knowledge concerning personality development, human relations, and the values worthy of being sought in life. Family economics shows how family incomes are being used to satisfy needs and desires. Management in the modern home calls for the use of knowledge from all these fields as the family weighs values and makes decisions in an effort to attain efficient and effective living.

CHAPTER III

RESPONSIBILITIES IN HOMEMAKING

The activities and events taking place within the home, regardless of the number of persons making up the family, determine the character of the responsibilities which must be assumed by homemakers. Although no two families are alike in every respect, certain areas of responsibility are common to all homes and around them daily decisions of family living center.

AREAS OF RESPONSIBILITY

Broadly speaking, homemaking responsibilities are divided into: (1) those which have to do with building family life, which include the problem-solving incident to parenthood; (2) those which are associated with management of resources to assure the attainment of family goals; and (3) those which involve physical activity in homemaking, as performance of tasks and care of family members. The last group involves not only the use of tools but also purposive activity or processes.

The three areas of responsibility, although widespread, are not mutually exclusive. They are closely interrelated and interdependent, and all three must be carried concurrently. Although many of the decisions which arise in connection with solving a problem in one area are simple and easily made, others are more complex and require deliberation and evaluation, with a final value judgment. Problems arising in one area need to be solved in full recognition of the impact of the solution upon those in other areas.

For example, a family living on a monthly income of \$200 includes in its personnel a fifteen-year-old daughter who wants to go to camp. The family finance planning does not include an allotment for this item, but it does include \$65 for a new mechanical washing machine, although the old machine is still in fairly good condition. Shall the money be diverted to the camp experience, or shall the washing machine be purchased? The

importance of the camp experience with its potential opportunities for personality development for the daughter will need to be weighed against the value of time and energy saving in doing the laundry for the family with the new machine. Which is the more important at the moment? Only the family can decide. The ultimate decision reached in solving such a problem involves intricate relations with all three areas of responsibility.

Before the three areas are discussed in detail, an examination of the following outline, which shows the requirements for some degree of proficiency in carrying the responsibilities of each, will help to clarify the scope of the areas. Four requirements—affection, knowledge, experience, and mental activity—are found important in all areas. The remaining requirements are more specialized for each one. For example, skill or the technique for each area shows a three-way expansion: namely, guidance skill, or the ability to work with people; managerial skill, or the ability to work with ideas; and technical skill, or the ability to work with tools.

**MAJOR AREAS OF RESPONSIBILITY IN HOMEMAKING WITH REQUIREMENTS
FOR EFFECTIVE PERFORMANCE IN EACH AREA**

<i>Area of Responsibility</i>	<i>Requirements</i>
I. Building family life	1. Affection 2. Knowledge 3. Experience 4. Mental activity 5. Self-management 6. Appreciations 7. Guidance skill
II. Management	1. Affection 2. Knowledge 3. Experience 4. Mental activity 5. Creative activity 6. Managerial skill
III. Physical activities	1. Affection 2. Knowledge 3. Experience 4. Mental activity 5. Creative activity 6. Physical effort 7. Technical skill

BUILDING FAMILY LIFE

The building of family life begins with the choice of the person one marries and continues until the family is dissolved. In Chapter I it was shown that the attitudes of the two individuals formed the foundations for the new family's philosophy of homemaking. The family's philosophy and the human values sought and shared, together with the managerial ability of the two homemakers, determine to a large degree the pattern of family living in each home.

Management and the direction of the physical activities in the home are an inseparable part of the building of family life, since the basic needs of life—affection, respect, security, and experience—cannot be supplied without management and work. The problems of family building are concerned mainly with ways of meeting these human needs and with fostering conditions for developing satisfying human relations in the group.

STAGES IN THE FAMILY LIFE CYCLE

Family life may be divided into the following seven stages:

1. Adjustment.
2. Accumulation.
3. Grade school.
4. High school.
5. College.
6. Recovery or rediscovery.
7. Retirement.

Life in the family without children may be divided into five stages:

1. Adjustment.
2. Accumulation.
3. Early years of married life.
4. Middle years of married life.
5. Retirement.

Specific relationship problems are connected with each stage which demand decisions, the making of adjustments, and the use of many types of information.

The first stage begins in the period of courtship. This stage

may extend into marriage for a short or long period, the time depending upon the personalities of the two persons marrying. Some would call this the "getting acquainted" period, or one of learning to know the other person.

The relationship during the so-called period of engagement has much bearing upon the first family stage. In the past its importance has frequently been overlooked by both young people and adults. The present demands made by students on the college level for forums and discussion groups on marriage and human relationships stand as proof of the growing realization of youth of the grave importance of more adequate preparation for marriage and family life.

Many young people are realizing that they have some responsibility for adjustment earlier than the marriage vows. When adjustments are made before marriage, the first stage of family life is shortened and made easier. The use of the term adjustment as a stage in family life should not be taken to mean that adjustment does not take place throughout life. As a stage, adjustment is heightened and made predominantly important under the pressure of a new type of living.

The second stage in the family cycle is *accumulation*. This stage is marked by the accumulation of attitudes which direct future living, the accumulation of family members with the coming of children, and the accumulation of goods. Although this stage includes the period of parenthood when children are under school age, in families where there are several children it frequently overlaps with the later stages of parenthood.

During this period parents must make many adjustments in their own personal relationships and to the children that are born to them. The care, education, and training of infants, organizing the household activities so as to equalize among its members the work involved, and making provision for the recreational and cultural life of each member of the family constitute the major responsibilities in family building at this time.

The third or *grade-school* stage in the family cycle begins a series of overlapping stages which cover the period of parenthood when children are in school. The grade-school stage is the period when children are about six to twelve years of age. This

is the time when children begin their formal education and when they make their first independent contacts with the world outside the home. During this period parents are primarily concerned with the educational and health needs of the children, with providing suitable food, clothing, and shelter, as well as social contacts outside the home.

The fourth or *high-school* stage in the family cycle includes the period of parenthood when the children are twelve to eighteen years of age. In this stage the parents are occupied with helping the children through high school, vocational or trade school, with helping them to solve their personality, social, recreational, and vocational problems, and with aiding them to become independent and self-sufficient.

The *college* or fifth stage covers the period of parenthood when children are over eighteen years of age and either in college or starting work. The chief parental responsibilities at this time are helping children through college or helping them to become established in a suitable vocation, and assisting them with the social and vocational problems that arise before, and sometimes after, they are married and have homes of their own.

The sixth is the *recovery or rediscovery* stage. This period is one in which the children have become independent, or nearly so, and in the average family the parents are still young enough to have active interests of their own. This period is one in which homemakers need to recover or "rediscover" an absorbing interest beyond their children. Such a rediscovery was effected by one woman who had been interested in dramatics throughout her youth and married life. When her children became independent, she revived an active interest in the theater and in a few years became a successful character actress. Similarly, women with professional interests such as writing, painting, and music often return to their work. For the large group of homemakers who have had no profession before marriage, the community in which they live offers many opportunities for interesting and creative experiences. Such opportunities may be found in church organizations, civic and welfare groups, clubs, and adult study courses. This stage also calls for social and vocational adjustments due to approaching old age.

The seventh stage, *retirement*, is a longer period than the others in our present society. The wants of individuals in this stage grow less intense, and the need for care and protection increases. It is a period of adjustment to changes in physique, in environmental conditions, and in human relations. For those who can make the necessary adjustments, human relations will continue to be satisfying, even though the physical setting of the home may change.

Successful family building requires affection, soundness and maturity of judgment in the approach to and handling of problems of human relations in the home, adequate economic security, and a willingness to continue education in order to meet the new problems of each stage of family life which arise from the maturing of personalities of adults and the advancing development of children.

The family is by its nature the best medium that has as yet been evolved for preparing the immature for social maturity. Building well for family life is building for a better social order. In many ways the home is a miniature state. Usually it is made up of individuals of different ages, different sex, different interests, and different attitudes toward life. Because of these differences, personality adjustments must constantly be made. The adjustments which the individual learns to make in his home and family life are at the same time education for citizenship. Conversely, everything that is done to make individuals better citizens builds habits, ideals, and attitudes that will function in his home life.

THE ROLE OF MANAGEMENT IN HOMEMAKING

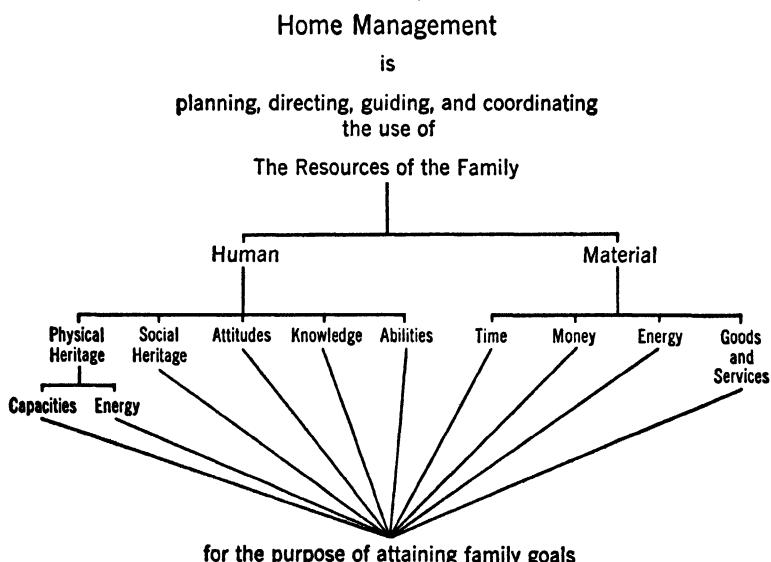
Home management is the natural outgrowth of human association in the home environment. As soon as the family is established and persons begin working together for a common purpose, the need arises for the development of a plan of action, for the delegation of responsibility, and for organizing and controlling the use of human and material resources of the home. Because of the multiplicity of living problems which must be constantly solved and which require a plan of action, manage-

ment becomes one of the major areas of responsibility in the home.

WHAT IS HOME MANAGEMENT?

Home management is the dynamic force in homemaking, the mental work and power that put the machinery of homemaking into action and keep it going. Home management is the art and science of planning, directing, guiding, and coordinating the use of the human and material resources of the family for the purpose of attaining family goals. The goals of home management are in the realm of the psychological, and the processes in the realm of both the psychological and the technological. The use made of the family's resources and the extent to which family goals are realized depend in large measure on the managerial ability of the two homemakers.

The following graphic representation of home management serves to show the part management plays in homemaking. In the well-managed home, that is, one which is accomplishing its goals to a satisfying degree, management is looked upon as a *means* to an end. Such a conception makes of management a tool or process used to attain family objectives.



As shown in the chart, the human resources available for family use include: (1) physical heritage, in terms of native capacities and human energy, (2) social heritage, (3) attitudes, (4) knowledge, and (5) the abilities of members of the family. The material resources used by the family in its daily life are (1) time, both short and long periods in which accomplishment takes place, (2) money, (3) mechanical energy or power, and (4) goods and services, both economic and free goods found in the natural environment. The making of decisions and plans for the use of these resources is conditioned and influenced in large measure by the goals and objectives of the family (pages 8-9).

The dynamic forces in management are planning, directing, guiding, and coordinating.

Planning. Planning is the orderly arrangement of the various means or successive steps believed to be necessary in the attainment of some end. So conceived, three steps, each with a correlated human power, are a part of the process of planning. The first step is the determination of purpose or objective. Every plan must set up a goal at which the planner hopes to arrive. The human power most correlated with this step is the power to visualize that which does not exist, or the power of imagination.

Imagination helps one to sketch out patterns to be realized in concrete form. One must be able to conceive that what is planned is better than what is already in existence.

This first step assumes an ability to look backward in order to move forward purposefully. How far forward depends upon the circumstances. Planning in a family may be for either a short time or a long time, depending upon the magnitude of the problem, or it may be for both a short and long time.

The second step in the process of planning is mapping out the best way or line of procedure by which the end result is to be reached. In addition to imagination, which is present in all the steps, the human power involved in this step is analysis. Every human being possesses these two powers to some degree. One can project the possibilities which might be effective and the procedure which might be followed to arrive at a desired result,

but these two steps alone are likely to be only "mental manipulation" and as such are not effective unless there is another step.

This third step is the decision of *how* the way mapped out is to be carried into effect or how the procedure is to be put into operation. The human power involved at this stage is the power to control the means arranged to effect change. It involves the use of the means planned for in order to reach one's goal. If this step is not carried out, the plan is of little value, for it is this step which puts action into planning. Planning ability enables the homemaker and her family to weave plans for each phase of homemaking into a larger family plan or action pattern. Thus planning is the vital part of management.

Directing and Guiding. Direction and guidance in management are so closely related that at times they merge. The subtle difference between the two forces lies in the fact that, in direction, the emphasis is placed upon the *process* itself, whereas in guidance the centering interest is upon what is happening to the *individual* carrying out the process. In family life both forces are essential in projecting short- and long-time plans.

Coordination of All Resources. Coordinating as a force in home management means control through unifying all aspects of the home into a smooth-running enterprise. The coordinated muscular system of the body does not operate perfectly because any one muscle or set of muscles is well developed, but because all muscles function as a smoothly operating whole. So it is with the home. The organization of all phases of family life into a unified whole is essential for smooth and comfortable operation.

MANAGERIAL RESPONSIBILITIES

What are the major managerial responsibilities in family living? They may be summarized as follows:

Developing a philosophy of homemaking.

Evolving goals for homemaking and management.

Working out wholesome and satisfying personal relationships.

Using time and energy wisely.

Financing the family in its many and diverse aspects.

Solving the housing problem to the best advantage for the family.

Furnishing and equipping the house.

Providing suitable food and clothing for the family.

Operating the household efficiently.

Protecting and promoting the health of the members of the family.

Directing the educational and social development of the family group.

Participating in community activities which affect the home and the family.

An analysis of these managerial responsibilities shows many interrelationships. Some are the direct outgrowth of others and as such are conditioned by them. For instance, family finances touch all phases of management, since they influence the desires of all family members, their decisions and choices, and in a large measure control what they can have and can do throughout their entire life. In planning for the family clothing, for example, the family finances must first be considered, and decisions must be made about the best methods of fulfilling the desires and needs with the money available. In every home, the management of time and work is also closely related to all other management problems. In order to accomplish each day's work without undue strain and tension, homemakers must constantly think in terms of time and effort in connection with each managerial responsibility and its related tasks.

Closer analysis shows that in turn each major responsibility is a complexity made up of a number of small units. By the wise use of plans, directions, control, and coordination, this relationship can be more easily established. The job of homemaking thus viewed challenges the very best intelligence of homemakers.

THREE PHILOSOPHIES OF HOME MANAGEMENT

The function of management in homemaking is viewed in three different ways. The first philosophy or "school" of home management sees the home environment as made up of a never-

ending round of specialized household tasks; management is concerned solely with the development of skills, with standardizing these tasks, with the choice of tools and equipment used in performing the tasks, and with mechanical efficiency. Efficiency and standardization in this conception are measured or gauged in units of the factors of consumption—time, energy, money—which are conserved through the *process* of utilization.

Such a point of view places the emphasis in home management upon technological interest or efficiency (page 4) as an end in life, to the exclusion of other values, instead of envisaging this one human value as a means to the attainment of all the values of life. With any one resource limited, such as time, its efficient use is important not because of the process of conservation but because the result of wise use of the resource can be measured in terms of all human values.

In a second philosophy, home management is viewed as a way of life, that is, the goals of homemaking are based upon human values, and management is looked upon as a way of achieving the supreme values from human relations. This philosophy sees the home as made up of human beings living together in an environment of love and affection who are predominantly concerned with the quality of human association which makes for satisfaction in living.

Management in the home under this philosophy becomes a means of using resources for the purpose of attaining family goals. Efficiency in the use of resources is measured not primarily in units of a resource conserved but in terms of individual development and in human progress and satisfaction. Management is therefore a device for accomplishment in living and is, thus, a way of life.

Efficiency in terms of attainment of goals in this second philosophy is illustrated by the adjustment of standards in the home as changed conditions arise. "Even within one home there may be different standards at different times. This is shown by one homemaker who said: 'There are three kinds of dusting: one where you dust every single thing and every crack and corner; one where you dust only what shows most, as the top of the piano

and table-tops; and a third kind where you just draw the shades.' "¹

There can be little doubt that "drawing the shades" at times will be the most efficient method in terms of human evaluation. It is quite as important that the homemaker know *when* to draw the shades and be willing to do it as it is that she know *how* to dust in the most efficient manner.

The judgment of *which method to use*, and when to use it, will depend upon the family's philosophy of home management.

There is a third conception of home management in which the individual becomes less important or is completely subordinated to the larger group. The home is looked upon as a key unit in the national economy and is viewed in its use of resources for the prime purpose of goals of the state instead of for individual or family objectives in terms of human development and values. This conception is a part of the philosophy of certain Fascist states, but it is not frequently held in American democratic society. During stress periods of war or disaster in a democracy, nationalistic thinking comes forward, but even then the motive is likely to be the *human interest* in the "soldiers at the front" or the "flood victim" in a very specific sense, and the state or nation may be a secondary or indirect motivating power.^{2, 3}

A study of the history of home management as a part of homemaking education in this country shows an evolution from the efficiency theory to the human-value theory. Unquestionably the teaching of home management was, and in many places still is, greatly influenced by the work in scientific management in industry, since the early spread of home-management education was concurrent with the rise of scientific industrial management.

Instead of developing principles of home management on the functional basis of values in the home, the early workers in the

¹ Mildred Weigley Wood, Ruth Lindquist, and Lucy Studley, *Managing the Home*, Boston: Houghton Mifflin Company, 1932, p. 44.

² *Home Management Papers*, Seventh International Management Congress, Washington, D. C., Baltimore: The Waverly Press, 1938, pp. 1-3.

³ Paulena Nickell, "Learnings in a Home Management House," *Journal of Home Economics*, Vol. 32 (May, 1940), pp. 305-306.

home-management field attempted to superimpose the principles of production management of industry upon the home without giving enough consideration to the vast difference in objectives of the home and industry. The approach was a logical one because the economic function of the home at that time was largely home production for home consumption. Its present economic function is that of directing consumption. Thus those early interested in home management attacked their problem from the point of view of efficiency in home production and activity. This approach placed the emphasis on the use of material resources, which were important in light of the economic function of the home at that time, but it did not give sufficient consideration to the impact of method upon human relationships in the home.

With social sciences showing an increasing acceleration of social changes, with psychology pointing toward the importance of personality fulfillment and human values, with sociology emphasizing the changing functional aspect of the home, it is important that home management review its approach. In choosing goods and services for consumption and in the conduct of the home in general, other human values will need to be given a more equal balance with efficiency in the home-production tasks and processes.

PHYSICAL ACTIVITIES IN HOMEMAKING

The third area of responsibility in homemaking, that of physical activities, might also be called the area of technology, since it includes the tools and equipment and the processes and effort by means of which the family and individuals carry forward their daily life. Although technology is often associated with only present-day living, in reality it is a product of man's efforts down through the ages to control the forces of environment. Spengler refers to this struggle for control as "man's technics in the tactics of living."⁴ Early man lived his own life, made his own weapons and tools, and followed his own tactics in the daily

⁴ Oswald Spengler, *Man and Techniques*, New York: Alfred A. Knopf, 1932, p. 10.

struggle. All his tools were fashioned according to his own skill and his own reasoning to be used in purposive activity.⁵

Today in our highly industrialized world the situation is completely changed. Men, instead of living and working alone, live and do things collectively, and as a result, they have become more and more dependent upon each other. The tools that were formerly made in the home are now made outside by many different people and in many different places. Thus man has become the consumer of technological equipment instead of the producer.

As technology has gone forward, family living and homemaking activities have changed. Some activities, such as spinning and candle-dipping, are no longer carried on in the home; many others, such as washing and ironing, have been appreciably lightened by means of new equipment; and in all homes many new activities have been added to the homemaker's daily schedule. Electricity is only one of the many technological developments responsible for these changes. Many others might also be mentioned.

The physical activities of homemaking may be classified as follows:

Physical work in caring for and in training children.

Purchasing, preparation, serving, care, and preservation of food.

Cleaning, care, and upkeep of the house, including care of fires and disposal of waste.

Purchasing, construction, repair, laundering, cleaning, and storage of clothing.

Purchasing, construction, repair, and cleaning of equipment and furnishings.

Care of the house surroundings, the car and garage, gardening, poultry and dairy work.

Work in connection with finance management, such as banking and the keeping of accounts and paying bills.

Some homemakers must do all the work connected with homemaking, depending only on occasional help from other members of the family. Some have a choice about what and how much

⁵ *Ibid.*, p. 51.

they will do, because it is possible for them to employ outside help or paid service of various kinds. Some homemakers do none of the actual work in the home but must be able to direct and guide the work of others. Homemakers living on the higher income levels and those who are employed in paid work outside the home are in this group. A knowledge of the work involved in the various processes is essential for the homemaker who employs outside help, since it enables her to plan the work and direct the worker more fairly and intelligently.

Work in the home means the expenditure of human energy for the purpose of accomplishing some end or objective. Planning, which is associated with all purposive work, involves mental activity. The execution of plans requires both mental and physical activity as well as knowledge, experience, and technical skill. In carrying out plans, thinking and doing activities flow along together and usually are so interconnected that one cannot be separated from the other. The skillful performance of tasks calls for close coordination of manipulation with one's powers of thinking and planning. The homemaker is continually testing her thinking in her work and in the results. In this way she develops managerial and manipulative skill and gains new knowledge and experience.

The time and physical effort that must be expended in homemaking activities with the resultant fatigue which is inevitable makes this area of homemaking of vital importance in the majority of homes. Studies which will be discussed in Chapter V show that a large proportion of the homemaker's time is consumed in homemaking activities.

How to do all the work that must be done each day without too great an expenditure of time and energy is one of the major problems in homemaking. Since each homemaker plans and works differently, there are as many solutions as there are homes and homemakers.

Because all work involves the use of the body and the mind, as well as many kinds of tools and materials, the methods of solving the work problems cross over into both the area of family building and the area of management. In any method, the family's interest, cooperation, and help are needed both in mak-

ing plans and carrying them to successful completion. Planning, which is a counterpart of all work, sets up the goals, fashions mental pictures of how they may be achieved, and helps in carrying the work forward from goal to goal. How effectively the homemaker is able to use her time and energy in the performance of homemaking activities will depend on her ability to control the forces in the different areas of homemaking which affect her time- and energy-spending patterns.

CHAPTER IV

THE EFFECTIVE HOME MANAGER

Organization and management are effective in the home only when some person capably assumes the major responsibility for management. The place of leadership which the woman naturally takes in her home, as wife and mother, makes her a vital force in its management. Although the father and children may cooperate in making and carrying out plans, the major part of management falls upon her shoulders. In large measure, the character of the home is determined by her managerial ability and personal qualities.

FUNCTIONS OF THE HOME MANAGER

Because of the complexity of homemaking, the home manager must function in a number of capacities. In carrying her share of the daily managerial responsibilities the homemaker must frequently play the role of a planner, decision-maker, director, teacher, energizer, evaluator, consumer-buyer, coordinator, and worker. Since each home is a place where personalities are in the making, the homemaker must understand human nature and the problems of human development.

The effective manager is one who is able to carry all these duties with some degree of skill. A discussion of the functions, or phases of work, of the home manager, will help to show how efficiency in each may lead to more effective home management.

THE HOME MANAGER AS A PLANNER

The aims or objectives of the individual members of the family as well as those shared by the family group are of utmost importance in the making of all plans. They are the goals or ends, and as such they control and guide the conduct and plans of the family. Planning the use of family resources

so that the family objectives may be realized to a satisfying degree requires an understanding of the needs, desires, and aspirations of each member of the family, as well as careful and constant study of the changing situations that every family must meet.

Prethinking and organizing are managerial devices that may be used both in making and in carrying plans to successful completion. They may also serve to encourage and help individual members of the family to work together in the achievement of their purposes.

Planning for effective and satisfying living is an evolving and continuing task. It calls for the constant making, testing, and reshaping of plans. While planning is for the most part the responsibility of the homemaker, plans which all the family have a share in making are the most workable and successful. Fitting individual plans into the larger family plan or "action pattern," and deciding such things as who will carry the responsibilities or how certain family resources will be used, are details which call for cooperative thinking. Success in planning depends to a large extent on the manager's ability to meet and adjust to changing conditions.

THE HOME MANAGER AS A DECISION-MAKER

Closely related to planning is the decision-making function in homemaking. Decision-making appears both in formulating and in adjusting the plan as it is put into effect. Intelligent adjustment of plans while they are in the process of being carried out is as important as the original planning. As the day's work goes forward, homemakers are constantly weighing evidence or facts, picturing and reviewing alternative possibilities, and making judgments.

At times the decision to be made is a choice between two material goods needed by the family. When pressed for time the homemaker may find it necessary to make these decisions alone. Frequently she is called upon to help decide between nonmaterial aspects of family life, such as two possible careers or avocations or even two pleasures. Decision-making is def-

initely conditioned by the family's or the individual's standard of values.

Decision-making is present in every plan which is evolved, in every training situation, and in all problems of coordination. The homemaker who has some degree of decisiveness in operating her home saves worry and friction for herself and her family. Planning and decision-making are necessarily inter-dependent functions.

THE HOME MANAGER AS A DIRECTOR

In directing and guiding the work of the household and the activities of the family, many decisions made by the manager of the home must be transmitted into directions for carrying out certain tasks and plans. The method and manner of giving instructions and of asking help of family members or workers is of the utmost importance in gaining cooperation and in establishing happy working relationships within the group. Frequently, well-made plans are not carried out, or some tasks are left undone and others unfinished, because the manager-director has not been clear or has used a poor method in giving directions. Direction-giving should be studied until a satisfactory and workable technique is developed. Following are a few suggestions which have proved helpful to many managers:

1. Make sure that you understand the process before you give directions.
2. Give as few directions as possible.
3. State directions in a positive rather than a negative form. The "do" type of directions are always more interesting and challenging and less irritating than the "don't" type.
4. Be sure that directions are clearly understood by the person who is to carry them out.
5. Make clear to the one who is carrying out the directions the degree to which personal judgment and initiative are to be used. This may avoid disappointment with final results.
6. Seek cooperation by using a courteous, cheerful, considerate tone of voice and bearing in giving directions or in

asking for help. This frequently conditions the response one receives.

7. Show or express appreciation of work well done.

THE HOME MANAGER AS A "TEACHER"

Important among the duties of parenthood are the training and encouraging of children to take responsibility as fast as they are able to do so. The effective manager-teacher is one who allows children to carry their share of the responsibility and not one who takes it from them hoping thereby to "spare" them. Educating children to enjoy responsibility, to adjust happily to problems of family living, and to acquire work habits which carry over into later life develops attitudes which help them adjust as circumstances change.

The homemaker-teacher will continually give her children new problems to solve, new tasks to master, which are within the range of their abilities. The solving of these problems gives an opportunity for the development of creative skills as well as experiences which demand some planning on the part of the child. Such training requires patience and time, and a willingness to accept standards children are able to attain while they are acquiring proficiency. During the learning process the mother-teacher can help by supplying facts, by interpreting these facts, and by creating and placing each child in problem situations where new educational experiences will take place. Furthermore, she can inspire children to thought and activity by her own interest in and enthusiasm for various activities in the home. The experiences to which the homemaker exposes her children during the years they are growing up will form the foundation for effective living throughout their lives. No experience in later life can take the place of a rich heritage from one's childhood and youthful days in the family group.

THE HOME MANAGER AS AN ENERGIZER

Enthusiasm, affection, appreciation, and a sympathetic understanding of the feelings and desires of each member of the family are among the most vital energizing influences in the home. They are effective agents in aiding people to realize

their hopes and desires in both work and play. When intelligently planned for and carried out, family activities offer an opportunity for both parents and children to plan, to think, to create, and to grow together.

Carried to the extreme, energizing may end in exploitation. This is what often happens when one member of the family plays upon the sympathies and affections of the others for his own personal satisfaction.

The spirit of constructive energizing is expressed in the following: "The satisfying home is the one in which each member finds the incentive and, as far as possible, the opportunity to develop the best that is in him and the one from which the community receives support and guidance in movements for the betterment of society at large."¹

THE HOME MANAGER AS AN EVALUATOR

In order that each member of the family may have the fullest opportunity to grow and develop, it is necessary from time to time to discuss and evaluate behavior, work habits, and the methods of management. If evaluation is to be helpful, each individual will need to be guided in developing a method of self-evaluation.

Objectivity is an important aspect in the development of self-evaluation. The one who is making the evaluation of the performance of another or who is guiding someone in self-evaluation should strive to be impersonal, in order that the result may be in terms of changed behavior or a changed attitude on the part of the individual, since such a change indicates that learning has taken place.

The following are some helps for the homemaker acting as an evaluator:

Guard against hurting the self-respect of any person—family member or paid worker—with whom you work.

Choose carefully the time of making an evaluation. A discussion in private when both persons are rested is the best

¹ Mildred Weigley Wood, Ruth Lindquist, and Lucy Studley, *Managing the Home*, p. 328.

time. Avoid attempting to evaluate during periods of fatigue or emotional upsets.

Give attention to voice and manner since one's approach is all-important and may condition in large measure the response of the individual.

Energizing individuals to make intelligent self-evaluations is one of the home manager's most valuable contributions in aiding her family to become well-adjusted and emotionally mature individuals.

THE HOME MANAGER AS A CONSUMER-BUYER

In an exchange society, the direction of the factors of consumption—time, energy and money—becomes one of the modern homemaker's personal and social responsibilities. The home manager as a consumer-buyer must assume the responsibility for a number of aspects of consumption. In planning her choices before she buys, she directs buying. In participating in those movements that foster improvement of conditions that affect consumer interests, she aids in directing consumption.

The whole problem of allocation of money income among various family needs—budgeting—is a part of the consumer-buyer function. Adequate financial records should be kept in order to have information upon which to base intelligent allocation of funds. The many decisions of what and how to buy to satisfy needs are made before the actual purchasing is done.

The homemaker as she goes to market is at the center of her consumer-buyer function. In choosing her market she is forced to balance values held by the family. She must decide whether to spend more time and save money or spend more money and save time and energy. The acquisition of knowledge of quality, grades, and standards is a formidable part of her responsibility as an intelligent consumer-buyer. What price to pay in relation to quality, for example, whether to use grade "C" or grade "A" canned corn, requires knowledge of quality and of alternative uses of different grades. The degree of expertise a homemaker-consumer can develop in these matters depends upon her interest, intelligence, and knowledge or ac-

cess to facts. Effectiveness in management will demand some acquaintance with these problems.

How active the average homemaker can be in working toward the improvement of conditions affecting consumer interest is problematical. The effective home manager will have a personal interest in movements and legislation affecting the consumer, for example, fair trade laws and chain-store taxes, both of which affect the cost of consumer goods, and pure food and drug laws, which help to maintain the quality of consumer goods.

Finally, the home manager as a consumer-buyer has some responsibility for training future consumers. The art and science of good buymanship is not learned through fact-finding alone, but by experience, and to be developed must be a part of one's everyday activities. Participation of all members of the family in buying makes buymanship a part of internal authority (page 14). The effective home manager functioning as a consumer-buyer will plan and arrange buying experiences for her children in accordance with their developing abilities.

THE HOME MANAGER AS A COORDINATOR

The home needs unity of activity if the family purposes are to be realized. A working harmony of the interests, activities, and personalities of the family group is one of the distinguishing characteristics of good management in the home. Full coordination takes place only when everyone who is especially interested in solving a problem or in carrying out some activity is represented in making the plans and decisions. The effective manager-coordinator is one who, seeing the home in its organized whole, helps members of the family to see their relation to that whole and at the same time to understand the desirability of a smooth-running household. This demands unselfishness, open-mindedness, fairness in judgments, tolerance, patience, and some degree of coordinative skill. In coordinating activities in the home, parents must ever work closely together in order that all members of the family will feel a unity of purposes.

THE HOME MANAGER AS A WORKER

In the majority of homes the homemaker is both the manager who plans the work and the worker who carries out the plans. In her role as manager-worker, the homemaker is continually using her time and energy to accomplish some end. These ends or objectives may be the routine tasks which must be done each day or those tasks which may lead to the realization of some more distant ends.

Because of the lack of training before marriage, many homemakers must obtain their knowledge of household techniques and skills by working in their own home. A great many of these skills are acquired by the trial-and-error method, doing the best one can, changing the method of work, until one gradually learns how to do the task. In this way homemakers acquire new knowledge and develop new skills or habits of work and new attitudes toward homemaking tasks.

Many home activities are to a large extent pleasurable because of the enjoyment which one gets from doing them. Work becomes drudgery only when the activity itself has lost altogether the quality of play. The extent to which the spirit of play can enter into and transform everyday work depends upon the attitude of mind the manager-worker cultivates toward her work. She can take all the enjoyment out of her work by approaching it with a feeling of dislike or distaste, or she can learn to derive from it all the possibilities of pleasure which it contains. Work that is enjoyed gives real satisfaction and becomes a means for expressing, enriching, and developing personality.

The manager-worker functions ably when she plans her work-life to conserve time and energy, when she brings to her work that spirit of play which reduces strain yet gets work done, and when her attitude toward work is in terms of accomplishment instead of process alone.

QUALITIES OF AN EFFECTIVE HOME MANAGER

The home invariably reflects the manager. The qualities that she possesses are reflected in the work of the household, in the

home life of the family, and in its social life generally. The creation of a harmonious, willing, and integrated working spirit within the family group calls for real leadership. Intelligence, enthusiasm, understanding of human nature, creative imagination, judgment, perseverance, adaptability, and self-management are among the characteristics that good home managers are likely to exhibit. Other qualities might be mentioned, but these are the ones that seem most basic to good management in the home.

Intelligence is one of the most necessary characteristics of the home manager. According to Woodworth, "As a word, *intelligence* is closely related to *intellect*, which is a comprehensive term for observing, understanding, thinking, remembering and all ways of knowing and of gaining knowledge. Intellectual activity yields knowledge of a situation. Intelligent activity does this and something more. It is *useful*, it helps in solving a problem and reaching a goal. Counting, for example, is an intellectual activity and yields knowledge, but whether this knowledge is useful or not depends on the matter in hand. Counting the chairs in your room and the guests you expect is an intelligent way of making sure you have enough chairs, but counting the letters on a page is scarcely an intelligent start toward learning a lesson. In common speech, then, intelligence means *intellect put to use*. It is the application of intellectual abilities in handling a situation or accomplishing any task."²

Thus it will be seen that the manager's ability to learn to pick out the essentials of a problem, to see the situation as a whole, to see relations between old and new, and to use knowledge previously acquired in solving a new problem and in reaching the goal depends upon her intelligence.

Enthusiasm is another characteristic that successful managers always seem to have. This quality is in part a by-product of good mental and physical health, in part a matter of tempera-

² R. S. Woodworth, *Psychology*, New York: Henry Holt and Company, 1940, pp. 97-98.

ment, and in part a result of a conviction of the significance of the undertaking.³

"To be enthusiastic means first of all to have caught sight of a value, a purpose, a vision, an ideal, that kindles all that is deepest and richest in the human heart. Then, and only then, have we opened the door to the incoming of rich and up-building enthusiasm."⁴

Enthusiasm motivates others to interest in an activity and stimulates oneself to higher levels of proficiency and productivity. A sustained, lively, and healthy type of enthusiasm is preferable to an erratic type which may be bubbling or excessive at one time and completely lacking at others. The latter kind is exploitive and suggests emotional immaturity and imbalance. The homemaker who is enthusiastic about her work will infect others with her spirit. By giving encouragement, she may develop enthusiasm in others.

The understanding of human nature is an indispensable quality for successful home management. The sympathetic understanding of the individual differences of members of the family and their probable reactions to different personalities and situations is a great aid in solving many problems of human relations and in reducing friction and disappointments which frequently occur in family life. Knowledge of the capacities, likes, and dislikes of each member of the family serves as a guide in making plans and in fitting responsibilities to individual capacities.

The home manager who shows confidence in another's ability, expresses approval when work is well done, and who is consistent and fair in dealing with all problems does much toward creating happy relations in the home.

Imagination is an essential characteristic for creative experiences in homemaking. Imagination is the ability to recall facts and ideas and to rearrange these in new relationships or patterns. It enables one to visualize and make plans and to foresee

³ Ordway Tead, *Human Nature and Management*, New York: McGraw-Hill Book Company, 1932, p. 154.

⁴ *Ibid.*, p. 154. From Nicholas Murray Butler, "Enthusiasm," an address delivered at the Commencement of Columbia University, June 1, 1927.

the results of a certain plan of action before it is actually carried out.

The home manager relies upon imagination whenever she is faced with a new situation in which past experience gives only slight guidance or in which a new method of attack must be determined. Frequently the need for this quality arises instantaneously, as when a sudden shift in plans is necessary or when emergencies occur. If this faculty is utilized to the fullest extent, the home manager is able to anticipate many problems before they arise.

In making plans for a new and unknown course of action, the homemaker who can readily visualize what she would like to see done and how she should go about it is the one who moves smoothly from the solution of one problem to the next. Originality and resourcefulness are the direct outgrowth of creative imagination. "The accuracy with which one's mental picture fits the processes with which one deals, is an important element in one's success or failure in management."⁶

Judgment is one of the homemaker's most priceless characteristics. It is that quality which enables her to weigh fairly the various facts in a situation and to see the problem in reasonable proportion to other problems to be faced. The ability to weigh critically, to evaluate, to analyze, and to interpret the experiences of herself and others is of vital importance to the home manager, who must constantly be making decisions on the best course of action to follow. Judgment is acquired through experience, for the most part; it grows slowly.

Perseverance is another valuable quality of the home manager. This characteristic combines courage and patience in homemaking. Its possession means that the homemaker believes so thoroughly in the inherent value of whatever the idea or task in hand may be that she is willing to work courageously and unremittingly for its achievement. It is that quality that gives her the courage to face facts as they are and to act in full knowledge instead of blindly. It enables her to see beyond the short-time

⁶ H. Hart, *The Science of Social Relations*, New York: Henry Holt and Company, 1927, p. 36.

goals, those less challenging routine jobs, to the accomplishment of the more distant goals in homemaking.

Adaptability is that quality of human nature which makes for flexibility in living. Much of the home manager's success in meeting her daily problems depends on her ability to adapt herself or her plans to changing circumstances. The human environment is not static. Conditions and demands change from day to day, so that the manager no sooner adapts herself to one set of conditions than she is called upon to adapt herself to some change. Plans must frequently be shifted or even given up entirely. Conflicts must be adjusted and difficulties overcome. Failure to meet changing conditions reflects an inflexibility of mind which stifles growth and progress and furthermore causes a lack of harmony in the home.

Self-management, or the management of feelings, is a requirement of the home manager. The home is a highly personalized enterprise founded upon the intimate and affectional life of its members. Many problems of management involve personal adjustments and relationships. The home manager who can keep her head when personal conflicts arise is much more capable of guiding the situation intelligently than the one who has little self-control. Self-management is required if the manager is to work amicably and harmoniously with every member of the family and to handle emotional entanglements without a display of feeling. The effective home manager is one who can "take things" as they come and stand up under strain.

Discouragement, frustration, or a feeling of martyrdom indicate bad mental health. They show a spirit of discontent and are very likely to cause irritability and lack of self-control. Any one of these approaches may permeate the whole group and cause an atmosphere of discord.

SELF-EVALUATION CHART OF HOME MANAGEMENT

The following chart, "Self-Evaluation of Home Management for Homemakers," is devised to focus attention on the functions fulfilled by the homemaker and the qualities deemed most necessary for effectiveness in management. Three levels of excellence with characterizing descriptions for each level appear in the

SELF-EVALUATION OF HOME MANAGEMENT FOR HOMEMAKERS

Place a check on the line above the group of phrases which most nearly characterizes your qualities. Underline any phrase which is particularly characteristic.

I. Managerial Abilities	Low	Average	High
To plan 1. Determine objectives	Unable to formulate goals for any problems.	Unable to formulate goals for some types of problems.	Able to forecast and formulate goals and to accomplish the ends set.
2. Seek solutions	Not often successful in finding solutions to problems. Not able to use knowledge. Wasteful of resources.	Cannot readily apply knowledge to solution of problems. Does not use all resources well, although may use some well.	Rapid association of ideas, rapid application of knowledge to solution of problems. Conserves resources through solving problems.
To direct	Unable to give clear directions. Manner of giving is irritating to those being directed.	Can give directions well when not under pressure. Usually clear, but not always.	Can give clear, concise directions in pleasant manner even under pressure.
To teach	Too ready to do what others should and might do. Not interested in creative expression of others. Inadequate fund of information.	Sometimes challenges individuals to creative expression (usually when not under pressure). Frequently fails to offer means of individual development. Has some types of information but not others.	Provides means and offers incentive for individual development. Challenges individuals to creative expression. Has a fund of information.
To energize	Forces or exploits through over-stimulation. Unable to motivate others and so fails to stimulate group interest. Seldom recognizes good work.	Able to stimulate activities in some types of individuals but not all. Sometimes exploitive. Sometimes forgets to appreciate work well done.	Able to interest and stimulate spontaneous activity. Does not exploit energies of others or allow others to do so. Motivates others through appreciation of good work.
To evaluate	Does not see value of analysis of past experiences. Unable to be objective. Tends to overestimate self.	Sees value of some analysis. Not always able to lead others to analyze. Objective if not under pressure.	Able to analyze and judge clearly in an objective manner. Able to guide others in making self-evaluation.
To buy	Poorly planned market order. Does not know or recognize signs of quality. Does not know quantities to buy. Wastes or overspends.	Vague as to qualities and quantities. Tends to use price as criterion of quality. Uses money to advantage for family.	Sees responsibilities of intelligent consumer. Specific as to amounts and quality. Uses money to advantage for family.
To coordinate	Sees each phase of homemaking as a separate unit. Concerned with as a related whole. May place	Tries to see phases of homemaking in its relation to family life and individual needs.	Sees each phase of homemaking in its relation to family life and individual needs.

details of individual phase instead of in relationship to the whole enterprise.	standards of performance above human values.	vidual development. Sees happy home life as a goal.
Technical worker Poor work habits due to lack of skill. Not interested in contribution of skill to management.	Averages work habits. Fair degree of skill. Tends to waste motion.	Efficient work habits. Appreciates contribution of skill to good management.
II. Personal Qualities		
Enthusiasm	Low	Average
Lacks spirit and interest. Has false or nervous spirit. Lethargic.	Sometimes shows interest and spirit. Frequently listless.	Has vital interest and spirit and expresses it. Has spontaneity. Inspires others to activity.
Understanding of human nature	Unable to recognize individual differences. Allows conflicts to arise because unable to sense situations. Not able to recognize special capacities of family members. Lacks confidence in people.	Sometimes recognizes individual differences but not always. Allows occasional conflicts to arise by ignoring reactions of individuals to situations. Shows confidence in some people but not all.
Imagination	Cannot visualize possible relationships. Bewildered when faced with new situations. Lacks originality.	Able to visualize relationship in some types of problems but not all. Fair ability to forecast probable "outcomes." Original in some aspects of home life but not all.
Judgment	Poor sense of values. Makes erratic decisions. Impractical and prejudiced.	Fair sense of values. Sometimes biased and impractical.
Perseverance	Unwilling to face facts. Easily discouraged. Impatient. Gives up quickly.	Willing to face certain types of facts, but not all. Patient, if not under pressure. Not too easily discouraged.
Adaptability	Adjusts slowly to new environment. Unwilling to modify plans or opinions.	Tries to adjust, but is not always successful.
Self-management	Cannot master self. Is emotional and temperamental. Easily discouraged.	Usually stable. Sometimes temperamental. Not easily discouraged.
		Shows self-control in majority of cases. Seldom discouraged.

chart. The scale is presented as a device to assist homemakers in analyzing and evaluating themselves in the management of their homes. Such an evaluation of one's self assumes an ability to be objective and to record judgments fairly.

The device is included in its full form with the hope that it will aid homemakers and students of homemaking in evaluating the effectiveness of their management and in using the evaluation so made to effect change and improvement.

"BEWARES" IN MANAGEMENT IN THE HOME

There are certain dangers inherent in management which every family should be aware of and guard against. They are of real importance, since they affect all members of the household and may be felt outside the home.

Often the man or the woman homemaker who has unusual managerial ability can easily conceive purposes and plans much more rapidly than can be carried out by the family. Usually it is hard for this type of individual to realize the time it takes for each person to do his share of the work, and as a result often becomes impatient with the lag. Such a person is apt to say, "It takes so much less time to do it myself than to have the children do it." Often such a statement indicates that the educational value to the individual in learning to do the task, as well as the satisfaction that comes from sharing in the activities in the home, have been lost from view.

The home manager who moves too far ahead of the family in planning and prethinking often develops a nagging habit or a "drive." It is difficult for members of the group who are "timed" differently to reconcile this temperament with their own. One of the challenges to home managers is the synchronizing of the different tempos of the members of the family. Failure to recognize these differences is a real hazard to accomplishment and to happiness. The manager who drives too rapidly when working with people of slower reaction time makes planning and organizing an *end* instead of a means to an end.

A danger which frequently arises in connection with time-and energy-planning is the exploitation of the energies of some or all of the family group in order that one member may take on

other responsibilities. The overloading of those who are already carrying heavy responsibilities usually causes worry, friction, emotional upsets, and unhappy relationships.

Overwork, which may result from trying to live up to a plan or to finish some task which takes more time than calculated, is a danger to be avoided. The woman who works on her nerve, or who borrows from the next day's store of energy in order to accomplish the work she had planned, usually ends the day thoroughly exhausted and unable to carry her full share of responsibility the next day. The results of this practice are pointed out in the discussion of fatigue (Chapter VI).

The danger which comes with the overenergetic man or woman who is constantly bustling and unhappy unless the entire family is also bustling cannot be overlooked. These persons are not so efficient as they seem, since successful management is not obvious and certainly allows freedom of action for all members of the family.

THE CHALLENGE OF MANAGEMENT IN HOME AND FAMILY LIVING

Management in family living is effective to the degree that it results in the accomplishment of work which must be carried forward in the home, makes possible better use of money, releases time and energy from routine to allow time for creative living, improves the choice and use made of goods, influences the establishment of reasonable standards, and integrates human values into living as changed conditions affect family life. Such management is helpful and satisfying to individuals and the group.

The homemaker learns better management by analyzing her own situations, by studying human nature and being conscious of what is involved in good management, by checking her own qualities against the qualities that make for success in home-making, and by enriching her experience with new points of view. Self-satisfaction is deadly to development. Following blindly the path of least resistance, doing things the "way mother did them," or following traditional performance hinders improvement and progress.

Management is successful in so far as it places development of individuals ahead of organization, and makes the dynamics of management the means to the end, which is satisfying human experience. Solution to home-management problems cannot be set up as "patterns of action" or in the form of prescriptions which a homemaker can take and fit to her individual family, for each family has its own needs which call for a plan of action all its own. The individual homemaker who would be effective in the management of her home will shape the daily plans of action to fit her own family's needs and desires. When this is done, management becomes a growing vital part of the family's experience.

PART II

TIME AND ENERGY MANAGEMENT IN HOMEMAKING

CHAPTER V

TIME, ENERGY, AND FATIGUE COSTS OF HOMEMAKING ACTIVITIES

The family resources—time and energy—are so closely related in home living that the management and use of either one affects the other. Time, which is one of the material resources of our environment, is shared alike by all individuals. Everyone, throughout life, has twenty-four hours each day to plan for and to use in some way. Human energy, on the other hand, although possessed by everyone, varies not only with each individual, but also in the amount that is available from day to day. The energy which each individual has to use, both for work and recreational activities, depends on his physical heritage and on his mental and physical health. Fatigue, which results from all work, and which lowers one's capacity to do work, is largely determined by the manner in which time and energy are used. The management of these two resources, time and energy, so that they will contribute the most in the attainment of individual and family goals and so that fatigue costs will not be excessive is one of the important managerial problems in home living.

Time and energy management begins early in life and continues as long as one lives. The young child's daily schedule of activities—sleeping, eating, resting, and playing—paves the way for purposeful planning later on. The rigid schedule which the school imposes upon the child makes new and exacting time and energy demands which must be met. Competing with these demands are the child's own need and desire for time to play, to

participate in sports and other activities, as well as to work. Because of these pressing time and energy demands, a child soon realizes the necessity and value of making some plan for the use of his time and energy. Through these time- and energy-spending experiences, initiative and skill in the management of time and energy are gradually developed.

The boy or girl who goes to high school or college, or into work of some kind, must learn how to manage time and energy in order to accomplish the necessary daily tasks and to meet the demands of rapidly changing situations. Likewise, the homemaker who is responsible for both the management and work of the household and the care of the children must develop skill in the management of time and energy if she hopes to achieve the goals for which she and her family are striving.

What yardstick can home managers find for evaluating the use of their own time and energy? How much time do other homemakers carrying similar responsibilities spend in homemaking activities each day and week? What are the time costs of the various homemaking activities? How much time do other homemakers spend in activities other than work—sleeping, eating, personal and recreational activities? How much and what kind of help do other homemakers need? What are the energy costs of the various homemaking activities? What activities require the greatest expenditure of energy and what ones the least? What ones are considered the most fatiguing? What factors affect the use of time and energy in homemaking? How can time and energy be used more wisely in homemaking?

These are questions asked by homemakers who are trying to make the most effective and satisfying use of their time and energy. Answers to some of these questions may be determined by analyzing the various studies that have been made in recent years to determine the use of time by homemakers and the energy and fatigue costs of household tasks.

TIME COSTS OF HOMEMAKING ACTIVITIES

A recent study of the homemaker's use of time made by the Bureau of Home Economics shows the average time spent in homemaking and other activities by four groups of farm and

urban homemakers. The study is based on weekly records of time expenditures kept by 1,500 rural and urban homemakers living in different parts of the country. Of this number 559 were farm homemakers, 249 were other rural homemakers, 282 were homemakers in cities under 100,000, and 410 were homemakers in cities of 100,000 or more.

The farm and village groups are representative of medium-income farm and village families; the urban groups represent the moderately well-to-do homemakers of the business and professional group.

The homemaking activities in these studies include those connected with housekeeping and management and the care of family members in the homemaker's own household. Outside work such as vegetable gardening, dairying, and care of poultry, ordinarily carried on by farm homemakers, is listed separately as farm work. Other work not listed as homemaking includes the care of pets, telephoning, errands, going and returning from places, and other activities which do not belong under homemaking headings.

The time spent in activities other than work—sleep and rest, both during the day and night, eating meals, dressing and other personal care, and leisure—are also reported in this study.

The help received by the homemakers is listed separately as paid help or as that received from members of the family.

Data on (1) the total time spent in homemaking activities, (2) the time spent in farm or other work, (3) the average length of the homemaker's working week, (4) the distribution of time among the different homemaking activities during the week, by the groups of homemakers included in this study, are summarized in Table I. These records reveal some interesting facts concerning the time costs of homemaking activities in both rural and urban homes.

According to the figures in Table I the *total time spent in homemaking activities* by the four groups of homemakers is surprisingly similar. On an average the farm homemakers and other rural homemakers spent almost 52 hours a week, while the two groups of urban homemakers averaged from 47 to 49½ hours a week. Part of this small difference is probably due to

TABLE I
THE HOMEMAKER'S WORKING WEEK*

Activity	Average Time Spent by			
	Farm Home- makers	Other Rural Home- makers	Home- makers in Cities under 100,000	Home- makers in Cities of 100,000 or more
	Hr. Min.	Hr. Min.	Hr. Min.	Hr. Min.
Homemaking				
Purchasing and management.....	2 10	2 45	4 40	5 29
Care of family.....	3 55	4 43	10 18	9 29
Preparing meals.....	15 14	13 54	10 49	9 14
Clearing away meals.....	7 36	6 45	5 11	4 03
Cleaning and care of house.....	9 37	9 26	7 38	7 20
Laundering.....	5 16	5 11	3 18	2 54
Mending.....	1 34	1 27	1 39	1 24
Sewing.....	3 59	4 45	2 19	2 38
Other homemaking.....	2 19	2 35	3 48	4 35
Total for homemaking activities.....	51 40	51 31	49 30	47 9
Farm or other work.....	9 35	4 28	2 4	2 5
Homemaker's average working week..	61 15	55 59	51 34	49 14
Average size of household (persons)...	4.3	4.0	4.1	3.9

* Unpublished data, Bureau of Home Economics, United States Department of Agriculture. (Averages based on records of 559 farm homemakers, 249 other rural homemakers, 282 homemakers in cities under 100,000, and 410 homemakers in cities of 100,000 or more.)

the slightly larger number of persons in the rural households, 4.3 persons as compared with 3.9 in the urban homes.

The *length of the average working week*, homemaking and farm or other work, of the different groups of homemakers varies considerably. The farm homemaker's working week averages a little over 61 hours, or almost 9 hours a day and every day in the week. The total hours spent in all work by homemakers in other rural homes is almost 56 hours a week, or 8 hours a day, and in urban homes in cities under 100,000, 51½ hours a week, or about 7½ hours a day, and in the homes in large cities, 49 hours a week, or 7 hours a day.

The difference in the length of the working day of the rural and urban homemakers is due both to the large amount of time which the rural homemakers spend in the care of poultry and milk, in gardening, and in doing other farm tasks, and to the small amount of help employed in the rural homes studied. (See Table IV, page 63.)

The distribution of time among the different homemaking activities in the rural and urban households during the week differs in many respects.

The 51 hours 40 minutes spent in homemaking activities by the farm homemakers were distributed approximately as follows: purchasing and management, 4 per cent; food activities, 44 per cent; house activities, 18 per cent; laundry activities, 10 per cent; mending and sewing activities, 11 per cent; care of the family, 8 per cent; all other homemaking activities, 4 per cent. Eighty-five per cent of the farm homemaker's working day was spent in management and routine work in the home, and 15 per cent in farm or other work.

The 47 hours 9 minutes given to homemaking by the homemakers in large cities were distributed as follows: purchasing and management, 12 per cent; food activities, 29 per cent; house activities, 15 per cent; laundry activities, 7 per cent; mending and sewing activities, 7 per cent; care of the family, 20 per cent; all other homemaking activities, 9 per cent. Ninety-five per cent of the city homemaker's working day was spent in management and routine work, and only 5 per cent in other work.

These figures show that the urban homemakers spent more time in the care of the family, but considerably less time in food service, cleaning the house, and laundry, than the rural homemakers. No doubt much of this difference may be attributed to the large amount of help which the urban homemakers had. (See Table IV.) The rural homemakers received only about a third as much help. The use of time by urban homemakers who have less help would no doubt be similar to that of the rural homemakers.

The urban homemakers spent twice as much time as the rural homemakers in purchasing and management. Some of this difference may be accounted for by the fact that the farm home-

maker is more likely to delegate to others some of the purchasing of food supplies for the family. Then, too, the amount of food that is produced on the farm and used by the family decreases the amount that the farm homemaker needs to buy.

Although the number of hours recorded for purchasing and management by all groups of homemakers seems small in comparison with the hours spent in other homemaking activities, it is no doubt true that many minutes are given to planning and decision-making during the performance of household tasks and while homemakers are resting that cannot be estimated and recorded.

TIME SPENT IN ACTIVITIES OTHER THAN WORK

The average amount of time spent in activities other than management and work each day by the four groups of homemakers is shown in Table II.

TABLE II
AVERAGE DISTRIBUTION OF THE 24 HOURS OF THE DAY REPORTED BY
HOMEMAKERS, BY TYPE OF COMMUNITY*

Type of Community	Number of Households	Work	Sleep and Rest		Eating Meals	Dressing and Other Personal Care	Leisure	Activities Not Clearly Reported
			At Night	During Daytime				
Rural			Hr. Min.	Hr. Min.	Hr. Min.	Hr. Min.	Hr. Min.	Hr. Min.
Farm.....	559	8 45	8 28	0 20	1 19	0 50	3 58	0 20
Nonfarm.....	249	8 00	8 36	0 23	1 17	0 55	4 32	0 17
Urban								
Cities under 100,000 population...	282	7 22	8 22	0 22	1 20	1 09	5 12	0 13
Cities of 100,000 population or more.....	410	7 02	8 22	0 21	1 22	1 16	5 23	0 14

* Unpublished data, Bureau of Home Economics, United States Department of Agriculture.

These figures indicate that rural and urban homemakers alike average about 8½ hours of sleep at night. They also spend a similar amount of time in rest periods and in eating meals. The urban homemakers spend slightly more time in dressing and personal care than the rural homemakers, but the greatest

COSTS OF HOMEMAKING ACTIVITIES

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TABLE III
AVERAGE TIME SPENT BY HOMEMAKERS DURING WEEK IN VARIOUS LEISURE ACTIVITIES, BY TYPE OF HOUSEHOLD*

Kind of Leisure Activity	Average Time Spent by Homemakers in				Proportion of Homemakers Spending Some Time			
	Rural Households		Urban Households		Rural Households		Urban Households	
	Farm	Nonfarm	Cities under 100,000	Cities of 100,000 or more	Farm	Nonfarm	Cities under 100,000	Cities of 100,000 or more
	Hr.	Min.	Hr.	Min.	Hr.	Min.	Per cent	Per cent
Reading (total)	6	55	7	21	9	14	45	99.1
Informal social life (total)	7	07	8	18	8	46	9	98.9
Other recreation (total)†	3	36	4	32	7	08	8	31
Religion and church activities (total)	1	31	1	52	1	51	1	20
Meetings and study (total)	1	56	1	53	1	29	1	32
Community and club work (total)	1	02	1	00	1	28	1	22
Helping relatives and friends .....	..	39	..	57	..	34	..	29
Going to and from home	2	54	3	21	3	10	3	24
Other activities	1	38	1	49	2	10	2	19
Activities not clearly reported .....	..	30	..	38	..	34	..	37
All leisure activities	27	48	31	41	36	24	37	38
							100.0	100.0

* Unpublished data, Bureau of Home Economics, United States Department of Agriculture. (Averages based on records of 559 farm homemakers, 249 other rural homemakers, 282 homemakers in cities under 100,000, and 410 homemakers in cities of 100,000 or more.)

† Includes social affairs, plays and concerts, movies and other amusements, listening to radio, outings and other sports.

difference occurs in the time given to leisure activities by the four groups. The urban homemakers have from 1 to $1\frac{1}{2}$ more hours to spend in recreational activities than the farm homemakers.

Table II is significant in that it shows little difference between the time-spending patterns of the rural and urban homemakers, in fact, far less than might be expected.

USE OF LEISURE TIME

The average time spent by the homemakers during the week in various leisure activities is shown in Table III.

These data show that about one-fourth of the leisure time of all homemakers was devoted to reading and about one-fourth to informal social life. Urban homemakers gave about twice as much time to other recreation, plays, movies, outings, and sports, as did the rural homemakers. The time spent in church activities, meetings and study, club work, helping relatives and friends, and in other activities was about the same for all groups.

According to these figures it appears that the different groups of homemakers spend their leisure time in much the same way; that all the homemakers spend about one-half their leisure time in reading and informal social life; that at least one-fourth to one-half of this leisure time is spent in and about the home.

HELP RECEIVED IN HOMEMAKING

Help in homemaking may be given by members of the family or by paid workers. The average amount of help received in homemaking during one week by the different groups of homemakers and the way in which this help was used are shown in Table IV.

A marked contrast will be noticed between the amount of help received by the rural homemakers and both groups of city homemakers. The farm homemakers had on the average only a little over 9 hours of help a week: 1 hour from paid workers and 8.3 hours from other members of the household. Because of this fact the help was limited not only in amount but also in kind. The urban homemakers had almost four times as much help, a large part of which was given by paid workers.

TABLE IV

AVERAGE AMOUNT AND DISTRIBUTION OF HELP RECEIVED IN HOMEMAKING
BY FARM, OTHER RURAL, AND URBAN HOMEMAKERS*

Activity	Average Amount of Help Received During Week by				
	Farm Home- makers	Other Rural Home- makers	Home- makers in Cities under 100,000	Home- makers in Cities of 100,000 or More	
Purchasing and management.....	Hr. Min.	Hr. Min.	Hr. Min.	Hr. Min.	
...	.. 15	.. 21	.. 16	.. 13	
Care of family.....	.. 38	.. 50	5 58	5 55	
Preparing meals.....	1 45	1 49	5 5	6 19	
Clearing away meals.....	2 17	2 15	5 41	5 52	
Cleaning and care of house.....	3 11	3 8	7 48	9 15	
Laundering.....	.. 41	.. 51	3 38	5 13	
Mending.....	.. 9	.. 5	.. 11	.. 12	
Sewing.....	.. 8	.. 5	.. 6	.. 22	
Other homemaking.....	.. 11	.. 14	.. 22	.. 30	
Total help received.....	9 15	9 38	29 05	33 51	

* Unpublished data, Bureau of Home Economics, United States Department of Agriculture. (Averages based on records of 559 farm homemakers, 249 other rural homemakers, 282 homemakers in cities under 100,000, and 410 homemakers in cities of 100,000 or more.)

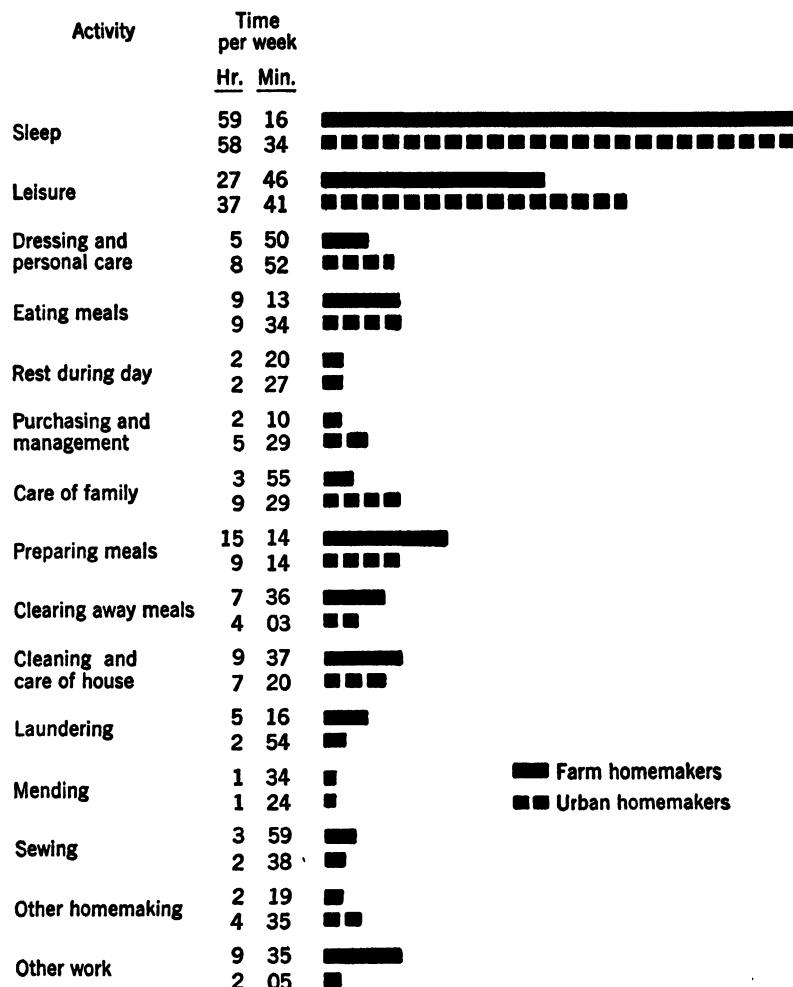
In spite of this difference, all groups of homemakers used their help in much the same way. In the farm home, the greatest amount of help was used in preparing meals, in clearing away after meals, and in the care of the house. In the urban homes help was used not only for these tasks but also for washing and ironing, and in the care of the children. All groups alike delegated to only a small extent the responsibilities of purchasing and management, mending, and sewing.

TIME-SPENDING PATTERNS OF HOMEMAKERS

A graphic picture of the weekly time-spending patterns of the farm homemakers and the urban homemakers living in the larger cities is given in Chart 1.

CHART I

WEEKLY TIME-SPENDING PATTERNS OF FARM AND URBAN HOMEMAKERS*



* Unpublished data, Bureau of Home Economics, United States Department of Agriculture. Averages based on 559 farm homemakers and 410 homemakers in cities of 100,000 or more.

These time-spending patterns may be used as yardsticks by all homemakers who wish to evaluate and analyze their own time expenditures. A similar chart may be made by any homemaker who is willing to keep a weekly time record of her own

homemaking and personal activities. Such a record is valuable, since it not only shows how one is spending time, but, when compared with these time-spending charts, it may suggest places where time can be reduced or where more might well be used.

Questions such as the following may help in making a checkup on one's time-spending habits or practices:

Am I spending my time on the things that mean the most to the family?

Do I spend enough time with members of the family?

Do I spend enough time in planning my work?

Can the time I spend in homemaking activities be reduced?

Are other members of the family sharing sufficiently in the homemaking activities?

Am I spending enough time in sleep and rest? In personal care? In mental development? In recreation?

Does my attitude toward homemaking responsibilities affect my use of time?

What improvements can I make in my time-spending practices?

HUMAN-ENERGY COSTS OF HOMEMAKING ACTIVITIES

The time-spending chart shows that the homemaker's working day calls for the expenditure of considerable energy, the amount depending on the tasks to be done. It is also true that many of the homemaking activities are of such a nature that the homemaker must stand while working, which in itself takes considerable energy. These extra-energy-taking tasks are frequently the ones which are considered the most fatiguing.

The performance of each task requires effort of various kinds. For instance, some *mental effort* is necessary to direct the doing of any task, even the routine ones, such as dressing, sweeping, and dishwashing, that are done almost automatically by most homemakers. Although one is seldom conscious of it, *visual effort* is required in most activities, since the eye must direct the movements of the body. Muscular movements of the eyes and adjustment of the vision to different distances and lighting conditions are continually taking place. A brief analysis of homemaking activities shows that considerable *manual effort*—reaching, raising, lifting, holding, carrying, stretching, pulling, and

pushing—is necessary. Such tasks as preparing meals, setting and clearing the table, dishwashing, and laundering require this type of effort. *Torsal effort*—bending, leaning, rising, turning, stooping, sitting, and kneeling—is necessary in doing some of the more strenuous tasks, such as those connected with the care of the house, and the garden and yard. *Pedal effort*—walking, moving, and standing—is an essential part of many home-making and recreational activities.

The different types of effort used in homemaking activities are listed in the following outline.

DIFFERENT TYPES OF EFFORT USED IN HOMEMAKING ACTIVITIES*

Mental effort	Thinking	Manual effort	Reaching
	Reasoning		Raising
	Planning		Lifting
	Decision-making		Holding
	Directing		Carrying
	Worrying		Stretching
	Talking		Pulling
Visual effort	Eye movements and pauses	Torsal effort	Pushing
	Looking		Bending
	Searching		Leaning
	Watching		Rising
	Adjustments to distances and lighting conditions		Turning
			Stooping
			Sitting
Pedal effort			Kneeling
			Walking
			Moving
			Standing

* Suggestions from "On Correalism and Biotechnique," Frederick J. Kiesler, *Architectural Record* (September, 1939), p. 61.

The performance of the different homemaking activities requires different combinations of effort. Most tasks, however, require mental, visual, manual, and torsal effort of some kind. A large number also require pedal effort.

ENERGY COSTS OF HOMEMAKING ACTIVITIES

The energy cost of each homemaking task depends on the amount and kind of effort that is required to do the task. As a

result tasks are designated as light, moderate, or heavy, according to the energy demands on the body.

The human energy required for the performance of any task is made up of several different parts. A certain amount of energy is needed for muscular tension and for the continuous body processes, such as respiration, circulation, secretion, and excretion. This is known as resting metabolism. In addition there is the energy used in the actual doing of the task.¹

In the studies that have been made, the energy consumed in doing a task is measured by determining how much oxygen is absorbed per minute, or how much carbon dioxide is produced. The results are given in calories per square meter of body area per hour and in per cent above resting. In each experiment the resting metabolism of the person being tested as well as the energy expenditure in performing the task are determined. The difference between the total energy cost and the energy cost of resting gives the energy cost of the task itself.²

Benedict and Johnson, who made the first study in this field, reported in 1919 on the energy expended by women in performing several household tasks. They tested 14 to 25 individuals in the performance of each task. They found reading and hemming to be light work, increasing the metabolism from 3 to 22 per cent above that while resting in a chair. Dusting and sweeping were more strenuous, causing a metabolism increase of about 150 per cent.³

During the next few years Langworthy and Barrot, using two subjects, studied other household tasks, which they divided roughly into three classes: (1) light work, as knitting, darning, sewing by hand and with a motor-driven machine, which causes an increase above resting in a chair of about 15 per cent; (2) moderate work, ironing towels, dressing infant (doll), washing dishes, and sewing by foot-driven machine, which increases the metab-

¹ VeNona W. Swartz, "The Human Energy Cost of Certain Household Tasks," *Wash. Agric. Expt. Sta. Bul.* 282, 1933, pp. 9-10.

² *Ibid.*, p. 9.

³ F. G. Benedict and A. Johnson, "Energy Loss of Young Women During the Muscular Activity of Light Household Work," *Proc. Amer. Philosophical Society*, Vol. 58 (1919), pp. 89-96.

olism about 24 calories per hour; (3) strenuous work, washing towels and sweeping the floor, which increases the energy expenditure about 50 calories per hour.^{4, 5, 6}

In 1922, Gairns and O'Brien made a study of the energy expenditure of eight subjects during breadmaking and when polishing the floor by hand. They found these tasks required moderate effort. The average cost in calories per hour per square meter was 33.53.⁷

The energy required by twelve subjects for ascending and descending stairs was determined in 1928 by Benedict and Parmenter. They concluded that the average person expends the same amount of energy in walking up one average flight of stairs as he does in walking on a level fifteen times the distance represented by the vertical height of such a staircase, or as he does in descending three such flights of steps.⁸

In a study of the energy costs of cleaning rugs, Dr. Ryan and his staff at the Hoover Company gave the following report. Using a broom on a rug involves large muscle groups and increases the metabolism 329 per cent above basal. Using a carpet sweeper increases the metabolism only 155 per cent above basal, while the straight air type of vacuum cleaner with a stationary brush on the nozzle increases it 130.1 per cent, and the same type of cleaner without the nozzle brush increases it 102.3 per cent.⁹

A report of the human energy cost of women subjects in

⁴ C. F. Langworthy and H. G. Barrot, "Energy Expenditure in Household Tasks," *Amer. J. Physiol.*, Vol. 52 (1920), pp. 400-408.

⁵ C. F. Langworthy and H. G. Barrot, "Energy Expenditure in Sewing," *Amer. J. Physiol.*, Vol. 59 (1922), pp. 376-380.

⁶ C. F. Langworthy, "Report of Work on Energy Expenditures for Sewing and Some Other Household Tasks," *Jour. Home Econ.*, Vol. 14 (December, 1922), pp. 621-625.

⁷ S. Gairns and M. K. O'Brien, "Results of Experiments Determining Energy Expenditure During Some Household Tasks," *J. Indus. Hygiene*, Vol. 4 (1922), pp. 283-291.

⁸ F. G. Benedict and H. S. Parmenter, "The Energy Metabolism of Women While Ascending and Descending Stairs," *Amer. J. Physiol.*, Vol. 84 (1928), pp. 675-698.

⁹ V. W. Swartz, "Human Energy Costs of Operating a Vacuum Cleaner at Different Speeds," *J. Home Economics*, Vol. 21 (1929), p. 440.

operating a Hoover vacuum cleaner at different speeds was made by Swartz in 1929. The results showed that the total energy cost increases with the increased speed and that, on the basis of efficient cleaning, a speed of $\frac{1}{2}$ or 1 foot a second is the most economical of human energy. The total cost of the $\frac{1}{2}$ -foot rate is 55.5 calories, and of the 1-foot rate, 79.1 calories. When these speeds are used, the task may be considered light work.¹⁰

In 1933 Swartz reported the average human energy cost of a large number of homemaking tasks performed under natural conditions. The tasks studied were paring potatoes, laundering, ironing linen napkins, and mixing batters and doughs. Metabolism tests were made with the subjects paring potatoes while standing, while sitting on a kitchen chair, and while sitting on a kitchen stool, to determine the effect of body posture on the energy requirement. In the laundry study an attempt was made to compare labor-saving devices with older devices and methods. The work on ironing included a comparison of ironing boards of different heights, hand irons and electric ironers, and irons of different weights. Batters were beaten and doughs kneaded at tables of different heights to determine the effect of table height on the energy expenditure of the worker.¹¹

The energy costs of these tasks are shown in Tables V-VIII.

A classification of homemaking tasks according to their energy demands on the body was set up by Swartz as follows:¹²

	PER CENT ABOVE RESTING
Light	under 100
Moderately heavy	100-150
Heavy	150-200
Very heavy	200-300
Extremely heavy	above 300

According to this classification, paring potatoes, ironing napkins, and beating batter may be classed as light work. Kneading dough and doing most laundry tasks where modern equipment

¹⁰ *Ibid.*, pp. 445-446.

¹¹ V. W. Swartz, "The Human Energy Cost of Certain Household Tasks," *Wash. Agric. Expt. Sta. Bul.* 282, 1933, pp. 10-23.

¹² *Ibid.*, p. 9.

TABLE V
ENERGY COST OF PARING POTATOES AS COMPARED WITH RESTING*

Kind of Activity	Total Number of Tests	Average Per Cent above Resting
Resting † (100 per cent)	33	
Sitting on kitchen chair	19	8.8
Sitting on kitchen stool	10	9.8
Standing, rested	19	12.1
Standing, tired§	9	16.1
Paring potatoes, chair	24	42.8
Paring potatoes, standing	26	50.2
Paring potatoes, stool	24	54.1
Paring potatoes, standing, tired	11	57.1

* V. W. Swartz, "The Human Energy Cost of Certain Household Tasks," *Wash. Agric. Expt. Sta. Bul.* 282, 1933, p. 11.

† Energy requirement for resting ranged from 29.0 to 34.8 cal. per sq. meter per hr. Energy requirement for resting was found by test when the subject lay relaxed and quiet on a comfortable bed.

§ After 2 or more hours of standing

TABLE VI
ENERGY COST OF LAUNDRY PROCESSES AS COMPARED WITH RESTING*

Kind of Activity	Total Number of Tests	Average Per Cent above Resting
Resting † (100 per cent)	36	
Wringer clothes with electric wringer	23	99
Hanging clothes from utility table	22	118
Drying clothes in extractor	21	125
Putting up and removing line	7	135
Wringer clothes by hand	23	138
Emptying washing machine	6	139
Cleaning laundry equipment	6	149
Rinsing clothes	21	161
Hanging clothes with basket on floor	21	184
Washing clothes by hand	25	191
Wringer clothes with hand-power wringer	7	197

* V. W. Swartz, "The Human Energy Cost of Certain Household Tasks," *Wash. Agric. Expt. Sta. Bul.* 282, 1933, p. 13.

V. Enid Sater, "Time and Cost Evaluation of Home Laundering," *Wash. Agric. Expt. Sta. Bul.* 317, 1935, p. 11.

† Energy requirement for resting ranged from 31.8 to 36.4 cal. per sq. meter per hr.

TABLE VII

ENERGY COST OF IRONING NAPKINS USING DIFFERENT EQUIPMENT AS COMPARED WITH RESTING*

Kind of Activity	Total Number of Tests	Average Per Cent above Resting
Resting† (100 per cent)		
Ironing		
Rotary ironers I and II	34	45.0
Rotary ironer	16	47.0
Flat-press ironer	3	60.0
Sitting chair	12	62.0
Sitting stool	26	64.0
Very high board		70.2
1000 W. iron, 3.5 lb.	13	75.8
High board		77.1
Standing	35	79.0
1000 W. iron, sloping handle, 4.6 lb.	14	79.6
1000 W. iron, 6.2 lb.	12	81.0
625 W. iron, 5.9 lb.	13	81.2
Normal board		82.2
1000 W. iron, straight handle, 4.6 lb.	13	84.9
Sad iron, 3-4 lb.		94.0

* V. W. Swartz, "The Human Energy Cost of Certain Household Tasks," *Wash. Agric. Expt. Sta. Bul.* 282, 1933, pp. 16, 17, 18, 19.

† Energy requirements for resting ranged from 32.1 to 36.4 cal. per sq. meter per hr.

TABLE VIII

ENERGY COST OF BEATING BATTERS AND KNEADING DOUGHS AS COMPARED WITH RESTING*

(Three to five tests each)

Kind of Activity	Average Per Cent above Resting
Resting† (100 per cent)	
Beating, high table	51.5
Beating, medium table	52.0
Beating, low table	54.8
Kneading, high table	116
Kneading, medium table	119
Kneading, low table	133

* V. W. Swartz, "The Human Energy Cost of Certain Household Tasks," *Wash. Agric. Expt. Sta. Bul.* 282, 1933, p. 32.

† Energy requirements for resting ranged from 34.3 to 34.9 cal. per sq. meter per hr.

is used are moderately heavy work. Rinsing clothes, hanging them up from a basket on the floor, washing clothes by hand, and wringing with a hand-power wringer are the heavy tasks connected with laundry.

In the following outline, the tasks mentioned in the various studies reported have been classified according to their energy demands on the body. The list covers a wide range of activities and includes many of the tasks most frequently done in the home. This classification answers in part the question at the beginning of the chapter: What tasks require the greatest expenditure of energy and which the least? Other homemaking tasks not given in these lists may be roughly classified by comparing the effort required to perform them with those that have been studied.

**HOOMEMAKING TASKS CLASSIFIED ACCORDING
TO THEIR ENERGY DEMANDS ON THE BODY**

Light Work	Moderately Heavy Work	Heavy Work	Extremely Heavy Work
Under 100 per cent above resting	100-150 per cent above resting	150-200 per cent above resting	Above 200 per cent
Hemming	Dusting	Sweeping floor	Sweeping
Knitting	Using carpet sweeper	Washing clothes by hand	rug with broom
Crocheting	Using some vacuum cleaners	Rinsing clothes	
Darning	Polishing floors	Wringing clothes with hand-power wringer	
Hand sewing	Dressing infant (doll)	Hanging clothes from basket on floor	
Sewing on motor-driven machine	Washing dishes		
Paring potatoes	Kneading dough		
Ironing napkins	Breadmaking		
Beating batter	Sewing by foot-driven machine		
Using vacuum cleaner on rug	Wringing clothes by hand		
	Wringing clothes with electric wringer		
	Drying clothes in an extractor		
	Putting up and removing clothesline		
	Hanging clothes from utility table		
	Emptying washing machine		
	Cleaning laundry equipment		
	Ironing towels		

FATIGUE COSTS OF HOMEMAKING ACTIVITIES

Measurement of the actual expenditure of energy in doing household tasks gives no indication of the fatiguing effect of the work. Some of the light tasks which involve little expenditure of energy may be very fatiguing, owing to mental approach, postural strain, muscle tension, or the concentration and skill required, while some of the heavier tasks which require more energy may actually be far less fatiguing. It is also true that one homemaker may spend much more mental and physical energy in doing a given task than another, and as a result, each may experience a different amount of fatigue. Furthermore, tasks which one enjoys doing are usually less fatiguing than those which one dislikes. Since fatigue as evidenced in the individual is a subjective state, it is difficult to measure, even approximately, and as a result, little attempt has been made to determine the amount of fatigue caused by different homemaking tasks.

TASKS CONSIDERED MOST FATIGUING

The tasks considered most fatiguing by homemakers have been recorded in a number of studies. In each one the data indicate that there is a definite connection between the fatigue experienced and the dislike for the specific tasks. The proportion of Oregon homemakers expressing dislike for specific tasks and experiencing fatigue from them is shown in Table IX.

Laundry, which was the task most frequently disliked by these homemakers, was reported producing the greatest fatigue. Cleaning, which was the second most disliked task, was also tiring to a great many homemakers. On the other hand, dishwashing, which was disliked by a large number, was not reported as fatiguing.

In a similar study made in Illinois, cleaning and care of the house were the most disliked and fatiguing tasks and laundry was second. Dishwashing was even more disliked by this group, but was not considered fatiguing. The very repetitiveness and nature of dishwashing, no doubt, is the reason it is so thoroughly disliked.¹⁸

¹⁸ Gladys Ward, *What Illinois Homemakers Want*, Home Economics Extension Service, University of Illinois, 1931.

TABLE IX

PROPORTION OF FARM AND NONFARM HOMEMAKERS EXPRESSING DISLIKE FOR SPECIFIC TASKS AND EXPERIENCING FATIGUE FROM THEM*

Activity	Homemakers†					
	Farm			Nonfarm		
	Spending Time During Week Studied	Expressing Dislike	Experiencing Fatigue	Spending Time During Week Studied	Expressing Dislike	Experiencing Fatigue
Cooking.....	Per cent 99.7	Per cent 11.8	Per cent 1.7	Per cent 99.4	Per cent 12.3	Per cent 2.3
Dishes.....	100.0	22.3	2.2	97.4	21.3	1.1
Canning.....	36.1	2.4	0.6	20.1	0.0	1.1
Cleaning, straightening.	100.0	34.1	31.1	99.4	52.5	48.3
Carrying water.	20.1	0.5	2.8	5.2	.....	.....
Laundry §.....	.....	12.3	43.5	.....	4.1	33.3
Washing.....	96.9	12.8	26.0	96.8	13.9	15.0
Ironing.....	92.0	9.5	7.9	94.2	9.8	11.5
Laundry, total..	.....	34.6	77.4	.....	27.8	59.8
Sewing.....	71.2	3.3	1.7	79.9	9.0	2.3
Mending.....	82.3	6.6	.....	85.7	3.3	.....
Care of children	65.3	0.5	0.6	81.2	.....	5.8

* Maud Wilson, "Use of Time by Oregon Farm Homemakers," *Ore. Agric. Expt. Sta. Bul.* 332, 1929, p. 46.

† Proportion of the homemakers who answered the questions.

§ Not specified, or washing and ironing.

In a study of the possible sources of fatigue, worry, and friction in 306 homes, Lindquist found that child development—caring for and training children—was considered the most fatiguing task, while laundry was second, and care of the house the third greatest source of fatigue.¹⁴

Worry and friction were reported as being the greatest in connection with child development and the care of the house.

¹⁴ Ruth Lindquist, *The Family in the Present Social Order*, Chapel Hill: University of North Carolina, 1931, pp. 34-38.

Finances, clothing, and foods also caused considerable worry. It appears that fatigue increases the tendency to worry and is often the cause of friction between family members. The study further showed that dislike for a particular task seems to bring on fatigue, whereas the task which one enjoys seldom seems hard or tiring.

The results of these few studies are of value in that they show that laundry, cleaning, care of the house, and child care are considered the most fatiguing tasks by these different groups of homemakers. It is significant that both the time and energy cost studies reveal that these are also the most time- and energy-consuming tasks in the household. Therefore, any attempt to lower time, energy, and fatigue costs in homemaking might well begin with a study of fatigue and its relation to time and energy management.

CHAPTER VI

FATIGUE AND ITS RELATION TO TIME AND ENERGY MANAGEMENT

An understanding of the nature and causes of fatigue, its influence on mental and physical efficiency, and the methods by which it can be controlled is essential in handling problems connected with time and energy management. In all homes the problems related to the production and control of fatigue are closely associated with those related to the effective management of time and energy. As previously stated, a large part of the fatigue experienced by homemakers is due to the manner in which they use their time and energy in homemaking activities.

The research of recent years in physiology, psychology, and industrial management has greatly increased the information concerning the production and control of fatigue in industry. Although none of these studies has been made in the area of homemaking, many of the results are of value in solving fatigue problems in the home.

NATURE, CAUSES, AND EFFECTS OF FATIGUE

There is no way of avoiding a certain amount of fatigue each day. It is an inevitable and normal result of all mental and physical activity. Since work strengthens the muscles and increases the capacity for muscular work, a certain amount of fatigue after work and recreational activities is healthful and desirable.

Fatigue manifests itself in three different yet closely related forms. An individual may experience:

1. A physiological state of fatigue resulting from work.
2. A feeling of tiredness.
3. A diminished capacity for work.¹

¹ P. S. Florence, *Economics of Fatigue and Unrest*, London: George Allen and Unwin, Ltd., 1924, p. 99.

PHYSIOLOGICAL STATE OF FATIGUE

According to various authorities fatigue may arise in the muscular system, in the nervous system, or in both combined. The effect of fatigue on the nervous system, however, is probably what limits our activities.

During muscular activity the body consumes fuel and gives out energy. The energy-producing material in the muscle is mainly glycogen, which is formed by the muscle tissue from the sugar products brought to it by the blood. In muscular work glycogen unites with the oxygen in the blood stream, freeing energy and forming lactic acid and carbon dioxide, both waste products which interfere with continued muscular activity.

After any kind of work, recovery, or the removal of lactic acid and carbon dioxide in the muscles, is necessary. During the process the carbon dioxide is picked up by the blood stream and carried to the lungs, where it is exhaled. At the same time, the blood brings oxygen to the muscles and the lactic acid is removed by oxidization and reconversion to glycogen. Thus oxygen helps to prevent fatigue by aiding in the removal of lactic acid in the muscles.

During moderate muscular work the individual is usually able to take in enough oxygen to keep the level of the lactic acid down to the point where muscular work can be continued for some time with little fatigue. If work is very strenuous, however, oxygen cannot be supplied fast enough to reconvert all the lactic acid formed during the work, and recovery cannot keep up with the work done. When this happens, fatigue, or diminished capacity for work, is produced and time must be allowed for recuperation.

Another energy-producing substance called phosphagen is also found in small amounts in the muscle. During activity phosphagen breaks down into phosphate and creatine and releases energy. According to Eggleton, phosphagen yields only a small amount of the energy needed by the body, but it is important because energy from this source is made available more rapidly than from glycogen. Phosphagen is also replaced very

rapidly in the early part of the recovery process, whereas the glycogen is rebuilt more slowly.^{2, 3}

Although the fibers of a muscle possess the power of contraction, every voluntary muscular contraction is due to the stimulus received from the central nervous system through the nerves. From the brain, nerve impulses pass down the nerves to the spinal cord. Nerves to the muscles in the arms, legs, and trunk branch off from the spinal cord at different levels and carry the impulses to the muscles themselves. Thus, in every voluntary muscular movement, nerve cells, nerve fibers, muscles, and the junction points between these structures work together. If any one of these structures fails to function normally, it is difficult for messages from the brain to reach the muscle and direct its movements.⁴

A study of the contraction of isolated muscles under different conditions indicates that, in man, the *fatigue which is commonly experienced does not occur in the muscle itself, but in the nervous structures which direct and control all voluntary muscular contraction.*

It is generally thought that fatigue first occurs in the synapses of the central nervous system.⁵ The unit of structure here is the neuron, a nerve cell including its branches. The branches of one neuron come in close contact with the branches of others, but they are in no way united. The junction point where the impulse passes from one nerve cell to the next is called a synapse. Fatigue retards the speed with which the impulse or message passes across the synapse, and may so change the action of the synapse that it completely blocks the passage. The synapse appears to be the weak point in the chain of conduction, a place which breaks down with comparative ease under stress or under

² M. Grace Eggleton, *Muscular Exercise*, London: Kegan Paul, Trench, Trübner and Company, Ltd., 1936, pp. 235-236.

³ E. C. Schneider, *Physiology of Muscular Activity*, Philadelphia: W. B. Saunders Company, revised edition, 1939, pp. 32-33.

⁴ G. P. Crowden, *Muscular Work, Fatigue and Recovery*, London: Sir Isaac Pitman and Sons, 1932, pp. 2-3.

⁵ *Ibid.*, pp. 8-10.

the effect of fatigue products. If the circulation of the blood is normal, the recovery from fatigue at the synapses is rapid.^{6, 7}

It has also been found that *fatigue occurs in the region of the junction between the motor nerve and muscle fiber*, the motor nerve end plate. With the oncoming of fatigue, the end plate gradually loses its ability to transfer nerve impulses to the muscle fibers. Such a disturbance of the nervous system interrupts the normal smooth coordination of muscular work. The loss of control over the direction of the nerve impulse is one of the first symptoms of mental fatigue.^{8, 9}

Mosso states that mental fatigue is also accompanied by muscular fatigue, by nervous excitability, by lack of energy, and changes of mood and attitude. He further adds that emotional strain fatigues an individual in much the same way as mental work fatigues the brain.¹⁰

In homemaking, the analyzing of problems, the making of decisions, the steady flow of impulses to the muscles, the complex neural processes involved in the coordination of skilled movements, the focusing of attention upon the work, the making of adjustments to the physical and social environment, the frequent changing of work, the constant necessity for dealing with new and unexpected events and situations, and the working with and for others all require mental effort and involve nervous strain, which result in both mental and emotional fatigue.

FEELINGS OF FATIGUE OR TIREDNESS

A feeling of tiredness is a very common experience. Tiredness may be localized in some particular muscle, or it may be a general feeling of weariness, or it may be mere sleepiness.¹¹ It is the subjective sign of the physiological changes resulting from

⁶ Robert S. Woodworth, *Psychology*, pp. 253-256.

⁷ Schneider, *op. cit.*, pp. 296-297.

⁸ *Ibid.*, pp. 296-298.

⁹ Crowden, *op. cit.*, p. 10.

¹⁰ A. P. Mosso, *Fatigue*, New York: G. P. Putnam's Sons, 1906, pp. 121, 251-252. A^{*}translation.

¹¹ H. E. Burtt, *Psychology and Industrial Efficiency*, New York: D. Appleton and Company, 1929, pp. 138-140.

work. Tiredness is about the only symptom of true fatigue that can be easily recognized. This tired feeling, however, does not always coincide with the physiological or true fatigue that manifests itself in decreased ability to work.

Frequently a person may feel tired at the beginning of a task, but then find that the tired feelings completely disappear and the capacity for performance is large as interest is developed in the task.

Very often when a person experiences the feelings of fatigue, he may be able to do better muscular and mental work than when not tired. This is explained by the fact that at a certain stage fatigue products may produce general excitement and instability by their action on the higher regions of the nervous system which normally control the lower. As a result there may arise a "temporary extravagance" in the expenditure of energy. On the other hand, a person sometimes feels fine, yet is unable to turn off the usual amount of work. At a certain stage fatigue may produce a feeling of ability to accomplish a great deal of work, but the work may fall short both in quantity and quality of work done under normal conditions. Therefore, the feelings of tiredness or freshness usually cannot be considered as accurate guides in judging either the effect of work on the individual or the work that can be immediately performed.¹²

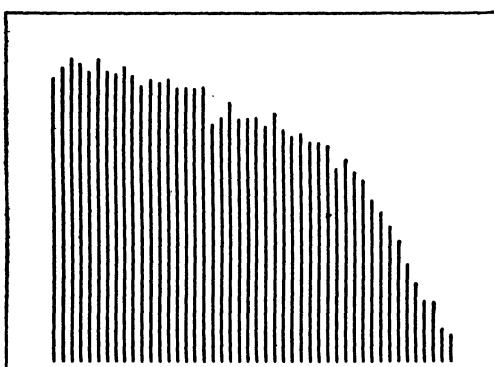
DECREASED CAPACITY FOR DOING WORK

Another expression of fatigue is the decreased capacity for doing effective work. The way in which fatigue affects one's working capacity was first shown by Mosso, who designed a finger ergograph to record the contractions of the muscles which flex the fingers. With this instrument he was able to obtain fatigue or work curves for the finger muscles when pulling against different weights. Figure 1 shows such a fatigue curve. Each line or stroke in the tracing represents a contraction of the finger. It will be seen that, as the exercise continues and the muscles tire, the length of the contraction gradually decreases until a point is reached where fatigue is so great that the weight can no longer be lifted. If the highest points of contraction are

¹² C. S. Meyers, *Mind and Work*, New York: G. P. Putnam's Sons, 1921, p. 41.

joined, the fatigue curve which is characteristic of the person tested shows more clearly.¹⁸

In comparing the fatigue curves of different subjects, Mosso found that each one showed characteristic differences in his capacity for continued work. Some individuals used up their energy gradually before fatigue set in. Others became fatigued soon after work was started. Through repeated experiments with the finger ergograph, Mosso further showed that the work curves of different individuals, or the manner in which they



(Adapted from A. P. Mosso, *Fatigue*, New York: G. P. Putnam's Sons, 1906, p. 89.)

FIGURE 1. Work or fatigue curve for finger muscles when pulling a weight.

fatigued, remained fairly constant.¹⁴ Yochelson, in an unpublished study, also reports that the type of curve of each subject conformed to unique individual patterns, regardless of the part of the body employed. These experiments include curves obtained by means of leg, finger, hand, and arm ergographs.¹⁵

Other experiments by Mosso indicate that the effects of fatigue are more difficult to overcome as fatigue increases, and when the muscles are exhausted, a very long interval is needed to make a complete recovery. Thus the worker who continues to work when he is already fatigued not only produces less effective work but also receives greater injury to his body.¹⁶

¹⁸ Mosso, *op. cit.*, pp. 88-92.

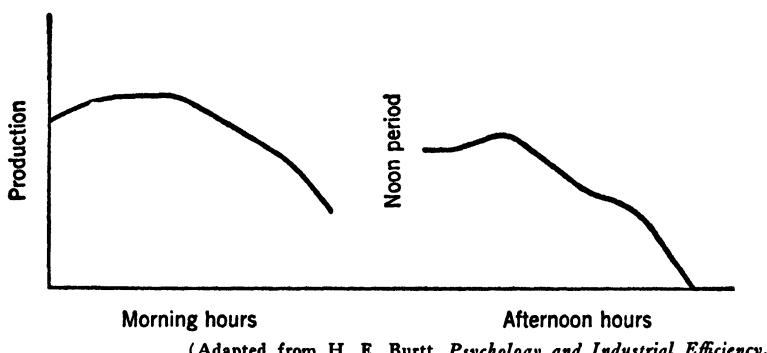
¹⁴ *Ibid.*, pp. 90-92.

¹⁵ M. S. Viteles, *Industrial Psychology*, New York: W. W. Norton and Company, 1932, p. 26.

¹⁶ Mosso, *op. cit.*, pp. 150-157.

According to production studies made in industry, fatigue lowers an individual's working capacity in an industrial plant in much the same way as it interferes with the capacity of muscles tested with the ergograph. Decrease in capacity for work through fatigue, however, seldom reaches the point of exhaustion in any kind of work, because no worker uses the same muscles through the working period, and no worker exerts himself on the job as a subject will in a short experiment in the laboratory. Furthermore, workers have learned to ward off fatigue by changing their positions and by taking occasional rest periods.^{17, 18}

The amount of work done during the day may be shown by means of a work or production curve. Figure 2 is a typical daily



(Adapted from H. E. Burtt, *Psychology and Industrial Efficiency*, New York: D. Appleton and Company, 1929, p. 154.)

FIGURE 2. Typical daily work or production curve for an individual doing heavy muscular work.

work curve for an individual doing heavy muscular work. The upward rise of the curve indicates a warming-up period in the morning. In most work it takes a short time for the worker to get into the swing of the thing and to become absorbed in the task. The curve, however, soon reaches its maximum and may run along on an approximate level for a short time. As the effect of fatigue makes itself felt, the rate of output gradually decreases and the curve begins to go down.

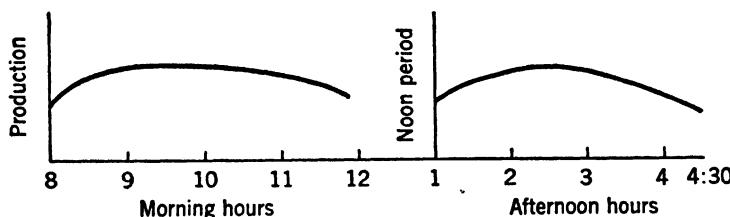
After lunch and rest the worker returns to work at a some-

¹⁷ Burtt, *op. cit.*, p. 154.

¹⁸ Crowden, *op. cit.*, pp. 6-8.

what higher level than when he left off before lunch. There may be another warming-up period, which is followed by a gradual decrease in output, probably due to increasing fatigue. The curve for the afternoon is similar in shape to that for the morning except that it drops more rapidly toward the end of the day.¹⁹

Much of the work in industry today is light, requiring skill and dexterity rather than heavy physical effort on the part of the worker. Figure 3 shows a typical daily work curve for a



(Adapted from A. G. Anderson, *Industrial Engineering and Factory Management*, New York: Ronald Press Company, 1928, p. 294.)

FIGURE 3. Typical daily work or production curve for an individual doing medium muscular work.

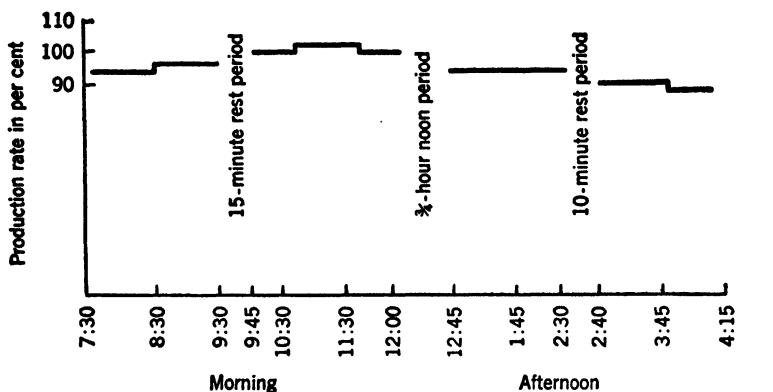
worker doing medium muscular work. This curve rises more slowly in the morning to the maximum height, and is followed by a less obvious fall than in strenuous muscular work. There is a less complete recovery after lunch (probably due to loss of adaptation) and a smaller decline toward the end of the afternoon.

Figure 4 is a production curve for women packing hand telephone sets. This curve shows the introduction of rest periods in the morning and afternoon working hours. After the rest period in the morning the output was slightly higher than before resting. In the afternoon the output dropped slightly after time was taken out for rest.

The fatigue or work curves of the muscles as well as the daily work or production curves for both heavy and light work in industry show that three general stages are experienced in all work:

¹⁹ Burtt, *op. cit.*, p. 154.

1. Worker's power gradually increases and the output of work slowly rises.
2. Worker's power reaches high point and the output of work remains on this level.
3. Worker's power gradually decreases and the output falls off.



(Adapted from A. G. Anderson, "A Study of Human Fatigue in Industry," Thesis, University of Illinois, 1931.)

FIGURE 4. Production curve for women packing hand telephone sets, medium manual work.

While in industry there are two work curves during the day, one for morning and one for afternoon, in homemaking, where work is varied and more or less continuous throughout the day, the daily work curve may be expressed by means of a single curve. Although there is no way of obtaining a typical daily work curve or pattern of the homemaker's work, the work curves of industrial workers suggest a "probable" curve, since the homemaker experiences comparable stages in her work day.

A probable daily work curve for the homemaker is presented in Figure 5. This curve has the characteristic shape of the daily work curves for the individuals doing heavy and light work in industry. There is the rise to maximum working capacity during the early hours of the morning followed by a gradual decline as fatigue increases. Such factors as illness, a poor night's sleep, nervous tension, an unusually heavy day's work, or overfatigue may cause variations in the shape of the curve from time to

time. Each homemaker, however, has her own individual work pattern, which remains fairly constant from day to day.

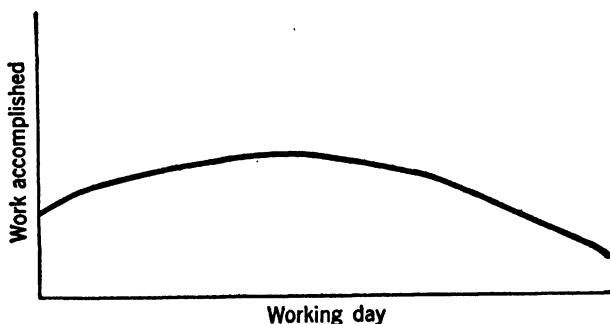


FIGURE 5. "Probable" daily work curve of the homemaker.

RELATION OF FATIGUE TO TIME AND ENERGY COSTS

The relation between the use of time and energy and the fatigue costs of the day's work is clearly shown in each one of the work curves (Figures 1-5). When the day's work is light or moderate, it is evident that the worker can continue at his usual rate of output throughout the entire day without experiencing any undue amount of fatigue. On the other hand when the day's work becomes more strenuous the worker's efficiency falls off long before the work is done. An analysis of the work curves shows that a reduction of the time and energy spent in doing each day's work is essential if fatigue costs are to be controlled and if workers are to maintain a high degree of efficiency.

A careful study of the various factors affecting the use of time and energy in homemaking will be helpful to homemakers who are trying to make adjustments in their time and energy expenditures. A better understanding of the forces within one's environment frequently leads to more efficient management of both time and energy.

CHAPTER VII

FACTORS AFFECTING THE USE OF TIME AND ENERGY BY HOMEMAKERS

The factors which affect the homemaker's use of time and energy are mainly those which determine the kind and amount of work that must be included in the daily time and work plan. Although many factors affect time and energy expenditures in the home, those which have the greatest influence are: (1) size and composition of the family; (2) income; (3) household standards; (4) location of the house; (5) the house, equipment, and furnishing; (6) activities of the family; and (7) seasonal changes. Some of these factors may make heavier demands upon the homemaker's time and energy during one period than another owing to changing conditions in the home. For example, the size and composition of the family, the family's income, and the activities of the family may vary considerably over a period of time. The more conscious the homemaker is of probable changes in her own situation, the more able she will be to make workable plans for the wise use of her time and energy.

SIZE AND COMPOSITION OF THE HOUSEHOLD

The composition of the household affects the homemaker's use of time and energy in many ways. Changes are constantly occurring in all families which require time- and energy-spending adjustments. A family with children passes through a definite cycle. It begins with two adults, increases in size according to the number of children that are born, and then gradually decreases as the children grow up and leave the home, until the family may again consist of only the two parents.

The effects of the composition of the household on the time spent in various homemaking activities by the farm homemakers and urban homemakers in the larger cities is shown in the studies of the homemaker's use of time made by the Bureau of

Home Economics. These data, which are presented in Figures 6 and 7, indicate that no other factor affects the time- and energy-spending pattern of the homemaker so much as the care of children. Even when considerable paid help is employed, the

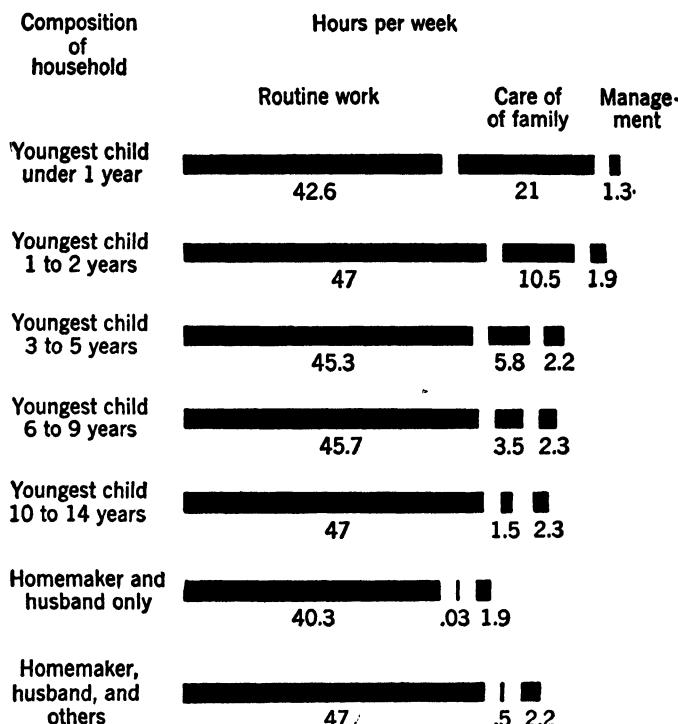


FIGURE 6. Effect of composition of household on time spent by farm homemakers in various homemaking activities. (Unpublished data, Bureau of Home Economics, United States Department of Agriculture.)

mother with small children has an unusually long working week, especially when the youngest child is under a year.

In the urban households, the homemakers with children under one year of age spent an average of about 58 hours a week in the various homemaking activities, in spite of the fact that over 40 hours of help were given by members of the family and paid workers. In the farm homes, where only 19 hours of help were received, the homemaker's working week averaged 65 hours when the youngest child was under one year. Since the

MANAGEMENT IN FAMILY LIVING

time given to homemaking activities is reduced very little, it is evident that both the farm and urban homemakers met the extra child-care demands largely by increasing the length of their working day and by time and work adjustments of one kind or another. As the children grow up the demands for child care

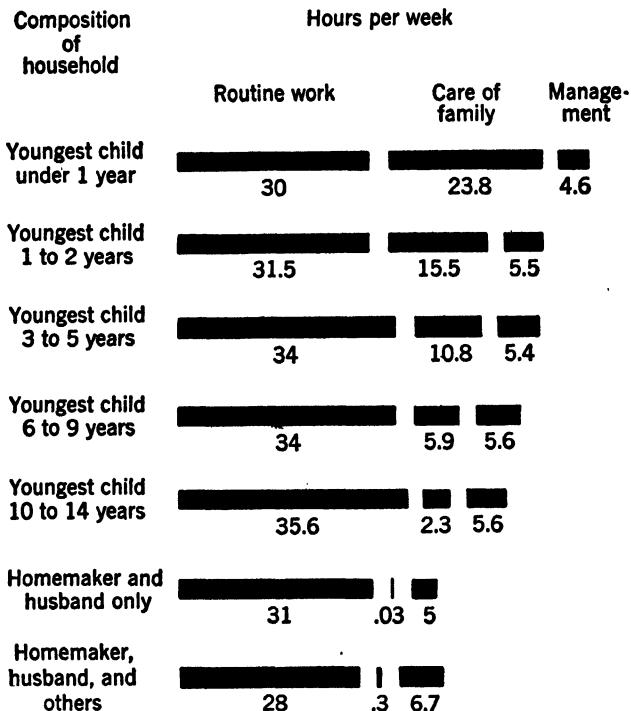


FIGURE 7. Effect of composition of household on time spent by urban homemakers in various homemaking activities in cities of 100,000 or more. (Unpublished data, Bureau of Home Economics, United States Department of Agriculture.)

drop from 22 hours to 1½-5½ hours a week. More time, however, is spent in routine work and management.

The presence of persons other than immediate family members in the household may affect time and energy use in a number of ways. If the person is able to give some help in the care of children, or with the household tasks, his or her presence may tend to shorten the homemaker's working day or release time that would not otherwise be available. On the other hand,

if the person is aged, or ill, and requires care, the working hours of the homemaker may be greatly increased.

These data indicate that the time spent in both management and work in the farm households was considerably increased by the presence of additional persons, whereas in the urban households it was slightly lowered. In both types of households the homemakers received extra help in homemaking activities.

INCOME

The income of the family influences the use of time and energy by the homemaker at a great many points, since it determines to such a large extent the manner in which the needs and wants of the family can be satisfied. When the amount of money available for household uses is adequate, the homemaker has some choice about how she uses her time and effort in homemaking. For instance, she may have paid help to carry a large part of the household tasks and thus free her time and energy for other things, or she may invest in labor-saving devices and do the work herself, or she may lighten her load by using the various commercial services.

As the money for household uses decreases, homemakers have less and less choice in the use of their time and energy, since they must supplement the lack of money income with work. As a result, the working day must either be lengthened to meet all the homemaking responsibilities, or the family standards of work must be changed to a different level. The homemaker who makes this time and work adjustment is in reality adding to the family's real income through her services.

HOUSEHOLD STANDARDS

The household standards of the family influence the time and energy expenditures of all members of the group. In most homes standards exist for performing tasks and activities and for finished products or completed tasks.¹ These standards set the goals to be achieved. They are the mental pictures of what the

¹ Irma H. Gross and Mary E. Lewis, *Home Management*, New York: F. S. Crofts and Company, 1938, pp. 66-89.

family or individuals consider a satisfactory level of attainment. Many of these standards are the outgrowth of family traditions and customs; many others are the result of the present-day social and technological environment.

When standards are unreasonable or too high to attain easily, an undue amount of time and energy may be spent on household tasks. Flexible standards—those which are high, when there is sufficient time and energy to expend in attaining them, and acceptable, when less time and energy can be spent—usually result in reasonable standards from day to day. Reasonable standards for any family are those that can be maintained without too great an expenditure of time and effort and without causing constant strain and emotional fatigue. Sound standards are based on the well-being of the family members rather than upon custom and tradition.

LOCATION OF THE HOUSE

The location of the home—its nearness to the wage earner's work, to school, churches, shopping centers, commercial services, and recreational centers—the transportation facilities, the availability of public utilities, and the improvements in the neighborhood or in the rural community all affect the manner in which the homemaker uses her time and energy.

When the distances to work, school, and shopping and recreational centers are great, the homemaker must spend considerable time in going and coming. Where there are no public transportation facilities such as in the country, the homemaker is frequently called upon to play the role of family chauffeur, a time-consuming task, and one which calls for the making of many time and work adjustments in the daily plan of work.

The availability and cost of public utilities usually determine the source of the water supply and the type of plumbing, the kind of cooking fuel and illumination, as well as the use of electrical labor-saving equipment in the home.

Cleanliness of the neighborhood and the condition of the streets and sidewalks, if one lives in urban districts, are important factors in connection with the amount of cleaning that

must be done. In the country, the road improvements, the relation of the house to the farm buildings, the presence of sidewalks and yard fences, and the type of fuel make a difference in the time and energy that must be expended in cleaning the house.

HOUSE, EQUIPMENT, AND FURNISHINGS

The size and arrangement of the house, the age and type of construction, the materials and finishes used, and the equipment and furnishings within the house greatly affect the kind and amount of work that must be done in the home.

Poorly planned houses and apartments, or ones that do not fit the size and needs of the family living in them, are responsible for much wasted effort and time in homemaking. Likewise, poorly constructed houses that allow dust and smoke to sift in, and materials and finishes that do not hold up under everyday use or that are hard to care for, increase work.

Under the present economic conditions and with the American habits of living, houses should be planned, constructed, and equipped so that the homemaker and her family (if they wish) can carry the homemaking tasks without an undue expenditure of effort and time.

The effect of the various kinds of working equipment upon the homemaker's energy expenditures was shown to be very great in the discussion on the energy costs of homemaking activities. The arrangement and grouping of this equipment in the working areas of the house are also important. When the service equipment is concentrated and grouped to meet the actual order of work, less time and energy are wasted in performing tasks.

The amount, the design, the materials, the finish, and the construction of furnishings determine the time and effort that must go into the care and upkeep of the household furnishings. A good example of this is the difference in the care of living-room windows which are hung with glazed chintz draperies and no glass curtains and those hung with ruffled curtains and cross draperies. The former may be brushed while hanging; the latter must be removed, cleaned or washed, ironed, and rehung.

ACTIVITIES OF THE FAMILY

The occupation of the father and other members of the family, whether their work is at home or away, their hours of work, and the children's school hours make very definite demands upon the homemaker's time and energy. These family requirements determine the hours at which meals must be served and the time during which certain food preparations must be made.

The recreational and leisure activities of each member of the family as well as those of the homemaker herself, the amount of company, and the kind of entertaining make a diversity of demands. Those activities which start early in childhood and go through adolescence more frequently call for direction, advice, and counsel than for actual help. Although this responsibility may be shared by both parents, the mother naturally carries the greater share, since she is the one who is usually at home.

Being on hand to help locate material for a shack the boys are building and to render first aid in case of a slip of a knife or a hammer, helping the girls plan their lunch for an impromptu picnic, calling the officers of the parent teachers' association to make arrangements for a meeting, taking grandmother for a ride in the car, or helping father with plans for a community or Farm Bureau picnic are a few of the dozens of time- and effort-consuming demands that are constantly being made upon every homemaker by the interests and activities of others.

SEASONAL CHANGES

The various studies of the homemaker's use of time show that the effect of season on the homemaker's work is especially marked in the farm households where gardening, care of poultry, and other outside tasks become much heavier during certain months of the year.

In Oregon, farm tasks were found to be the lightest in January, requiring on an average only about 4 hours a week, whereas in June and July the average time increased to almost 15 hours. In Washington the farm tasks were heaviest in the spring, and in South Dakota the time spent in farm work averaged over 13 hours a week during both spring and summer months. These

were also found to be the busiest months in the Nebraska farm homes.^{2, 3, 4, 5}

Although no data are available on the effect of season on the urban homemaker's time and work, it is probably true that in many homes considerable extra time is given to food preservation and gardening during the summer months. Planning for children's work, play, and other activities during the vacation period also brings added responsibilities for homemakers with families, especially in the city. It is frequently necessary for the city children to go away from home to work, or to a park, swimming pool, or camp for recreation. In the country, the farm activities, and the space and opportunities for play and development at home during the summer vacation period, make this planning less of a time and work problem than in the town and city.

² Maud Wilson, "Use of Time by Oregon Farm Homemakers," *Oregon Agric. Expt. Sta. Bul.* 256, 1929, pp. 30-33, 62.

³ I. F. Arnquist and E. H. Roberts, "The Present Use of Work Time of Farm Homemakers," *Wash. Agric. Expt. Sta. Bul.* 234, 1929, p. 13.

⁴ G. E. Wasson, "The Use of Time by South Dakota Farm Homemakers," *S. D. Agric. Expt. Sta. Bul.* 247, 1930, p. 8.

⁵ M. Ruth Clark and Greta Gray, "The Routine and Seasonal Work of Farm Women," *Neb. Agric. Expt. Sta. Bul.* 238, 1930, p. 37.

CHAPTER VIII

CONTROLLING TIME, ENERGY, AND FATIGUE COSTS THROUGH PLANNING

The large number of homemaking tasks that must be performed each day and the frequent changes of work necessary during the day emphasize the need for the skillful management of both time and energy, if work is to be done without too much fatigue, and if time is to be freed for personal and recreational activities. Managing time and energy involves both making plans and carrying them out. The efficiency of the plan and the effectiveness with which it is carried out depends to a large extent on the managerial skill of the homemaker.

TIME AND WORK PLANS

A time and work plan is an effective device for controlling the use of time and energy in the home. Part of a plan's usefulness lies in the fact that many time and work problems are thought through in advance of the actual doing of the day's work. Such prethinking removes all manner of time- and energy-wasting indecision during the hurried and crowded hours of the day.

The use of time and work plans enables the homemaker to learn how much work can comfortably be done during the day, what she can expect to accomplish. Each homemaker's daily time and work plan, and the way it is carried out, are reflected in the profile of her daily work curve.

PLAN BUILDING

A time and work plan is simply a forecast of the daily and weekly work of the home. It shows:

1. The homemaking tasks and the time and day each is to be done.
2. The distribution of tasks over the days of the week.
3. The sequence or order in which tasks follow one another in the day's work.

4. The approximate time that should be apportioned to the different tasks.
5. The time allowed for interruptions and unexpected demands.
6. Who is to do the tasks.

HOMEMAKING TASKS AND TIME AND DAY EACH IS TO BE DONE

In order to build an efficient and workable plan, each homemaker with the help of her family must decide not only what tasks should be done each day, but also what ones each week, and what special and seasonal tasks should be fitted into the daily and weekly plans, as well as the time each task can best be done. Though the daily tasks and many of the semiweekly tasks remain much the same throughout the year, the special and seasonal tasks and the recreational activities are constantly changing. Each of these makes different time and energy demands which may result in other changes in the time and work plans.

In most homes the time for doing certain tasks is definitely fixed by some condition outside the home or some special demand within it. The husband's or children's hours of work, or the wife's, if she is employed, and the hours that children must go to school usually determine the time that breakfast must be prepared and served, or when lunches must be put up, or when members of the family must be taken to school or work. Although the time for certain tasks, such as feeding and bathing the baby or serving some of the meals, is relatively fixed, these tasks do not require the same rigid adherence to schedule as the "definite time tasks."

Individual members of the family may also have definite time tasks, some of which may last only a short time, whereas others may extend over a long period. Music lessons, scout work, school, and other outside activities usually make definite time demands, and, as such, they must be considered in making the daily time and work plan, since they frequently affect the homemaker's time as well as the amount of help that individuals can give about the house.

The distribution and sequence of the other homemaking tasks will of course depend on the time of day these fixed tasks must

be done and also on the amount of time they take. All definite time tasks shape the daily and weekly time and work pattern in every home.

The time that help is available frequently determines when certain tasks can best be done. Jobs that require several workers must often be fitted into the plan at a time when the workers are free. When outside help is employed, the time the worker's services are available fixes the time for doing many tasks.

DISTRIBUTION OF TASKS

The interests, work habits, and health of the homemaker affect the distribution of tasks throughout the days of the week. For instance, some homemakers who are interested in outside activities may prefer to do their washing and ironing on Monday, or on Monday and Tuesday, in order to free large blocks of time on two consecutive days. Other homemakers who have heavy demands on their time and energy over the weekend may find it easier to do other tasks on Monday and wash and iron on Tuesday and Wednesday. Still others may choose to do their washing and ironing on the installment plan, a little at a time. Where there are several children and especially when the changes of clothing are limited, this may be necessary. Homemakers who have outside help, or who live in apartments where laundry facilities are available only at certain times, must adjust their plans to fit the situation. Many homemakers who are pressed for time, or who do not have sufficient energy to carry the entire homemaking load, solve their problem by having the laundry done outside the home.

The distribution of recreation time throughout the week depends largely upon the individual making the plan and the way in which this time is to be used. Sometimes, it may seem desirable to plan for some recreation time each day. Other times it may be an advantage to omit most of the recreation time several days of the week in order to have longer periods for some of the more time-demanding recreational activities, such as all-day meetings away from home, a movie, a game of golf, a picnic, or a weekend trip.

In all homes there is less danger of overwork and fatigue if

work and recreational activities are distributed over the week so that time and energy expenditures are about the same for each day. Alternating the heavy more-fatiguing tasks with the lighter less-fatiguing tasks and planning only comfortable periods of heavy work at one time help to distribute the energy cost during the day.

The length and distribution of rest periods is determined by the fatigability of the homemaker and the type of work being done. For some workers a number of short rest periods may seem best; others may get sufficient rest and relaxation by a change of work.

Naturally the effect of fatigue upon individuals varies. No two workers experience the same amount of weariness or need the same amount of time for recovery. Many homemakers have found that introducing short rest periods at those times of day when fatigue is greatest permits them to recover from a certain amount of fatigue as the day goes forward. The length of the rest period, of course, depends on how fatigued the homemaker is, but in any event it should be long enough for her to feel rested and able to return to work with zest. The answers to a questionnaire sent by Frederick to 100 homemakers who did their own work, asking the hour or time when fatigue was the most noticeable during the day, showed that in the period from 8 A.M. to 7 P.M. there are two "high fatigue points," one around 2 o'clock in the afternoon and the other about 7 o'clock in the evening.¹

The time of greatest fatigue in any individual case is frequently due to the kind of work being done. For instance, on those days when several hours of heavy work such as washing and cleaning are done early in the morning, one of the high fatigue points may come late in the morning. For the homemaker with young children, the high point of the afternoon may come just before the evening meal. For some it may be directly after the noonday meal. By careful observation any homemaker can learn where the high fatigue points in her working days are likely to come and plan ways to counteract them.

¹ Christine Frederick, "Household Engineering," *Scientific Management in the Home*, Chicago: American School of Home Economics, 1925, p. 493.

SEQUENCE OF TASKS

The sequence or order in which tasks follow one another in the day's work is in part determined by their relationship to each other and in part by the number of related tasks which are carried on in the same part of the house. All tasks should be arranged so that the work may be done with the least amount of effort and tension. Grouping or dovetailing related tasks that naturally flow along together and that are carried on in the same area of the house is an effective method of saving time and energy. Combining tasks which require the use of the same tools also lowers the time needed for assembling equipment and materials, for cleaning up and putting them away.

APPROXIMATE TIME FOR DOING TASKS

Estimating the amount of time each task or group of tasks will probably take is important in making a workable plan. Without this information, it is difficult to arrange a closely knit plan or to decide how much work can comfortably be done each day. The time studies reported in Tables I and II may be used as a basis for making time estimates for many tasks. These may be further supplemented by personal time observations made by individual workers in the home.

INTERRUPTIONS AND UNEXPECTED DEMANDS

Weekly plans are sometimes difficult to follow, since unplanned or unexpected interruptions and demands arise which affect the time and work of the homemaker. Out-of-town guests may drop in and spend the night, an aching tooth may require several trips to the dentist, a bad cold may keep one of the children in bed, a clogged sink drain may delay dishwashing and require the attention of a plumber, the appearance of moths in a closet may bring extra cleaning demands, a costume may need to be made for a school play, a special meeting may be called which requires the attendance of both homemakers—all unexpected, time-taking, as well as work-making tasks that somehow must be fitted into the daily and weekly plans. Every plan should be flexible enough so that it can be adjusted to meet

these unforeseen demands without upsetting too greatly the daily and weekly plans or disturbing the comfort of the family.

WHO IS TO DO THE TASKS

Deciding who will do the various homemaking tasks is not difficult if all members of the family have some share in making the plans. The main problem is to divide the work so that each one will carry a fair share of responsibility and at the same time get experience in doing all kinds of tasks about the home.

PRINCIPLES OF PLAN BUILDING

The principles underlying the building of workable plans for the use of time and energy are:

Plan to take care of the important things first.

Arrange the work in the sequence best suited to family needs, interests, work habits, and free time.

Plan time- and energy-saving combinations of tasks whenever possible.

Allow sufficient time to do each task satisfactorily without squandering effort.

Plan definite time for rest and recuperation from fatigue.

Plan time and energy for personal recreational activities as well as family group activities.

Distribute the work and recreational activities over the week so that the time and energy expenditures will be about the same for each day.

Make the plan flexible enough so that it can be adjusted to meet unexpected interruptions, delays, and demands, and still remain a reliable guide.

Divide tasks so that each member of the family will carry a fair share of responsibility.

Alternate heavy tasks with light tasks, and plan only a few hours of very heavy work each day.

STEPS IN MAKING A TIME AND WORK PLAN

A workable plan must be built step by step and shaped to fit the needs of the particular family. Although the details of time and work plans differ in each household, the steps in making daily and weekly plans are much the same. The five steps in

STEPS IN MAKING A

STEP 1

List all family activities.
These might include:

Everyday Tasks

Daily readjustment of plans.
Care of family.
Preparing and serving meals.
Care of food.
Dishwashing and serving meals.
Straightening and cleaning.
Care of fires.
Rest and personal care.
Recreational activities.
Social activities.
Outside tasks.
Unexpected tasks.
Care of pets.
Any others.

Weekly and Special Tasks

Laundry—washing and ironing.
Mending and sewing.
Thorough cleaning of house.
Special cleaning tasks.
Shopping and ordering.
Special cooking and baking.
Extra or guest meals.
Meetings, clubs, etc.
Trips to doctor, dentist, etc.
Banking and account-keeping.
Recreational activities.
Repairs on equipment and house.
Extra tasks of farm homemakers.
Any others.

Seasonal Tasks

Planning and directing vacation
activities of children.
Preparation for holidays.
Storing winter clothing, etc.
Canning.
Gardening—vegetable and flower.
Care of yard.
Screens and storm windows.
Any others.

STEP 2

Make a skeleton plan of the daily definite time tasks.

Write down the tasks that must be done at definite hours every day, such as preparing and serving meals, care of children, putting up lunches, taking members of family to school and work, etc.

6:30–7:30 Prepare and serve breakfast.

11:15–12:00 Prepare and serve lunch.
12:00– Lunch.

5:15–6:00 Prepare and serve dinner.
6:00– Dinner.

TIME AND WORK PLAN

STEP 3

Make a plan of everyday tasks.

Fit the other daily tasks into the skeleton plan in the order and at the time that seems best, leaving blocks of time for weekly, special, and seasonal tasks.

6:15	Care of fires. Review and adjust day's plans.
6:30- 7:30	Prepare and serve breakfast.
7:30- 9:00	Clear table, wash dishes. Do kitchen work, start lunch. Daily cleaning and straightening.
9:00-11:00	Weekly, special, seasonal tasks.

11:00-11:15	Rest.
11:15-12:00	Prepare and serve lunch.
12:00-12:45	Lunch.
12:45- 1:30	Wash dishes, do kitchen work.
1:30- 2:30	Rest and dress.
2:30- 5:15	Weekly, special, seasonal tasks.

5:15- 6:00	Prepare and serve dinner.
6:00- 6:45	Dinner.
6:45- 7:15	Wash dishes, etc.
7:15-	Reading, visiting with family, recreational activities, or some kind of work. Put living room in order before retiring.

STEPS 4 AND 5

Complete the daily and weekly plan. Decide who will do each task.

Fit the weekly, special, and seasonal tasks into the blocks of free time left in the daily plan on the days that best meet the needs of the household and the work habits and time of the members of the family.

6:15	Care of fires. Review and adjust day's plans.
6:30- 7:30	Prepare and serve breakfast.
7:30- 9:00	Clear table, wash dishes. Do kitchen work, start lunch. Daily cleaning and straightening.
9:00-11:00	Weekly, special, seasonal tasks.

Mon.	_____
Tues.	_____
Wed.	_____
Thurs.	_____
Fri.	_____
Sat.	_____
Sun.	_____

11:00-11:15	Rest.
11:15-12:00	Prepare and serve lunch.
12:00-12:45	Lunch.
12:45- 1:30	Wash dishes, do kitchen work.
1:30- 2:30	Rest and dress.
2:30- 5:15	Weekly, special, seasonal tasks.

Mon.	_____
Tues.	_____
Wed.	_____
Thurs.	_____
Fri.	_____
Sat.	_____
Sun.	_____

5:15- 6:00	Prepare and serve dinner.
6:00- 6:45	Dinner.
6:45- 7:15	Wash dishes, etc.
7:15-	Reading, visiting with family, recreational activities, or some kind of work. Put living room in order before retiring.

plan building discussed below are shown in detail on pages 100 and 101.

The *first step* is the listing of the everyday, weekly, and seasonal activities of the family. This provides a record of tasks that are to be included in the time and work plans.

A yearly calendar of all the special and seasonal tasks, together with vacations, holidays, and anniversaries, is a great help in making plans (page 106). Such a calendar enables one to look ahead and plan when and where these tasks or events can and must be fitted into the current plans. Long-time planning of this sort keeps tasks from piling up, especially just before Christmas holidays or vacation time. With this type of planning much of the nervous strain and fatigue which come from working under great pressure is eliminated. As a result everyone is able to enjoy the things which have been planned and worked for.

Once the big duties of the year have been written down in calendar form, there is less tendency to put them off to another day or week. The wise manager soon learns the meaning of Poor Richard's saying, "Drive thy business! Let not that drive thee!"

The *second step* is the making of a skeleton plan of the definite time tasks that occur each day. Only those tasks that must be done at certain hours every day appear in this sketch. When these definite time tasks are written down in the order in which they are to be done, with space left for other tasks, they form the *skeleton time and work pattern* around which the rest of the plan is built. As new and different demands arise, this skeleton plan is adjusted to meet them.

The *third step* is the making of a plan of everyday tasks. This is done by fitting these tasks into the skeleton plan in the order or sequence that seems most convenient and workable. Blocks of free time are left in the morning and afternoon for weekly, special, and seasonal tasks, since some of these tasks must be done each day.

One of the simplest methods of making the daily time plan, one that is used by experienced home managers who carry their plans in their head, is the timing of units or groups of related tasks. For instance, all the routine tasks connected with the prep-

aration and serving of meals and the daily cleaning tasks may be timed as one group, and the weekly and special or recreational tasks of the morning and afternoon in two large groups. Through this method of grouping and timing work, one gets the habit of doing a definite amount of work during certain hours of the day, or of thinking of accomplishment in terms of large units or blocks of time, rather than of small units for each individual task.

The *fourth step* is the completion of the *daily and weekly plan of work*. In this part of the plan, the weekly, special, and seasonal tasks are fitted into the blocks of free time in the daily plan on the days of the week that best meet the needs of the household, the work habits of the homemaker, and the free time of the workers.

The *fifth step* is deciding and jotting down *who will do the different tasks*. This may be done along with steps 3 and 4, if one wishes, since these decisions are usually made when the order and time of work are determined.

This type of plan is simple to make, easy to carry in one's head, and possible to follow.

MAKING THE PLAN WORK

A plan, to be of any value, must be workable. It must work when things are running along in normal fashion; and with adjustment it should work when emergencies arise. A flexibly made plan will at least serve as a guide no matter what circumstances arise.

The carrying out and adjusting of all plans call for continuous head work, and as one homemaker of experience said, "just a lot of plain common sense." When emergencies arise, there are a number of ways of rearranging or reshaping plans.

For instance, under certain circumstances, as in the case of illness, or when outside work or shopping takes one away for the major part of a day, all except the essential tasks can be omitted from the day's plan. In some instances, the plan may be adjusted by postponing some of the tasks to a future time. When this cannot be done, a little more speed, or an extra hour in the

evening, or a letting-down on the standards for a day, or a little more help from the family may be the means of catching up. The best of managers cannot escape emergency days, but they can learn to meet them efficiently and with mental poise. When properly used, a time and work plan is unquestionably one of the homemaker's most effective time- and effort-saving devices.

ADVANTAGES OF A WRITTEN PLAN

Plans may be written down or they may be thought through and carried in one's head. Written plans are particularly helpful to inexperienced homemakers and to those homemakers who are having difficulty in getting their work done without too much fatigue. Homemakers who employ outside help or whose children share in the work will also find written plans a great convenience.

The chief advantages of a written plan are:

It enables the homemaker to know what tasks must be done each day.

It eliminates needless repetition of directions to members of the family and household workers.

It serves as a guide in future planning.

It gives the homemaker a feeling of mastery.

It removes much of the nervous strain caused by confusion and indecision.

It diminishes the anxiety and fear which come from inability to meet situations as they arise.

A carefully prepared written plan soon grows into an unwritten one and becomes a part of the homemaker's everyday life, something to work by, yet adjustable to the everyday needs of the family.

AN EXAMPLE OF A WRITTEN PLAN

The following plan shows how one family used the five steps in plan building in making their daily and weekly time and work plans. The family consists of father, mother, a boy of thirteen, a girl of eight, and a grandmother, who is able and likes to carry some homemaking responsibilities. The children come

home from school at noon; the father who is a businessman is away at noon. They live in a modern seven-room house in a large suburb of a midwestern city. The house is heated with coal, and the cooking fuel is gas. The electrical equipment consists of a washing machine, vacuum cleaner, and iron.

The daily, weekly, special, and seasonal tasks for the week have been listed, and each member of the family has checked off the tasks he or she expects to perform each day. It will be

EXAMPLE OF PLAN BUILDING BY A FAMILY

Daily and weekly time and work plan	Mother	Father	Grand-mother	Boy	Girl
Check over and adjust day's plans	✓	X			
Care of fires, waste, yard		X		△	
6:30- 7:00 Prepare breakfast	✓				
7:00- 7:30 Serve breakfast	✓				
7:30- 9:00 Wash dishes and do kitchen work	✓		○		
Bedroom work	✓		○	△	—
Daily cleaning and straightening	✓		○		
9:00-11:00 Weekly, special, seasonal tasks	✓				
Monday <u>Washing</u>	✓				
Tuesday <u>Ironing</u>	✓		○		
Wednesday <u>Work in flower garden</u>	✓				
Thursday <u>Clean downstairs windows</u>	✓		○		
Friday <u>Cleaning house</u>	✓				
Baking, Cleaning	✓		○		
Saturday <u>Clean upstairs windows</u>				△	
Sunday <u>Attend church, Rest</u>	✓	X	○	△	—
11:00-11:15 Rest period	✓		○		
11:15-12:15 Prepare lunch	✓				
12:15-12:45 Serve lunch	✓				
12:45- 1:30 Dinner preparation	✓		○		
Wash dishes and do kitchen work	✓		○		
1:30- 2:30 Rest and dress	✓		○		
2:30- 5:15 Weekly, special, seasonal tasks	✓		○		
Monday <u>Wend. Dampen clothes</u>	✓		○		
Tuesday <u>Seur</u>	✓		○		
Wednesday <u>Work on club report</u>	✓				
Club meeting	✓				
Thursday <u>Yard work</u>	✓			△	
Swing			○		—
Friday <u>Take daughter to dentist</u>	✓				
Yard work	✓	X		△	—
Saturday <u>Scout meeting</u>	✓			△	—
Sunday <u>Vicet, Rest, Picnic</u>	✓	X	○	△	—
5:15- 6:00 Prepare dinner	✓				
6:00- 6:45 Serve dinner	✓	X			
6:45- 7:15 Wash dishes and do kitchen work	✓			△	—
7:15 Reading, visiting, recreational activities, light work	✓	X	○	△	—
8:30 Bedtime, clothes laid out for next day				△	—
Put living room in order before retiring	✓	X			

noticed that the plan for each day is checked over by the home-maker, discussed with the family, and adjusted to meet any necessary changes. This prevents any misunderstanding and confusion during the day. Such a plan is quickly made and easily changed from day to day or from week to week.

The following yearly calendar of seasonal and special family activities shows an easy method of keeping track of these tasks as well as the time when each task should be integrated into current plans.

A YEARLY CALENDAR FOR RECORDING SEASONAL AND OTHER SPECIAL ACTIVITIES

EQUIPMENT AND RECORDS FOR MAKING TIME AND WORK PLANS

Some homemakers and their families prefer to write their plans on a kitchen blackboard, where they can be easily seen and quickly adjusted. Other homemakers prefer to write their plans on paper and hang them on the kitchen wall. Plans kept in this form may be saved for reference in future planning, and in checking time values for seasonal and special tasks.

Experienced homemakers often find a calendar of special tasks and social activities sufficient guide for the week's plan of work. Many of these homemakers, however, rely on written plans during unusually busy days or weeks when the details are too numerous to carry in their heads.

No matter what form of plan making is used, storage space for writing materials and records is needed. For those who make plans on paper, a convenient desk or shelf in the kitchen makes the task much easier. An alphabetically arranged notebook for recording detailed plans for the various activities, the yearly time and work calendar, directions for doing tasks, addresses, telephone numbers, and other information on management is a great convenience.

CHAPTER IX

CONTROLLING TIME, ENERGY, AND FATIGUE COSTS THROUGH ACQUIRING SKILLS AND IMPROVING METHODS OF WORK

The acquisition of skill in the performance of homemaking tasks eliminates many time- and energy-consuming motions in the day's work. Tasks are easily done and plans are executed with speed and smoothness by the skilled and experienced homemaker. Her motions are graceful and rhythmic, and they reflect the mental control back of the motions. The inexperienced homemaker works slowly and laboriously. Her motions are ungraceful and unrhythmic and show lack of confidence and control. She finds it difficult to carry out her plans according to schedule, and she is likely to be dissatisfied with her performance.

How are homemaking skills acquired? Why is it that Ann can make thinner rolled cookies than any of her friends? How does it happen that Mary can iron the collars of shirts so perfectly? How can Jane always prepare and serve such delicious meals? Why is it that mother can turn off so much work with so little effort? What motivates these particular homemakers to acquire these skills?

The self-assertive motives are harnessed to all the activities involved in homemaking. One reason why Ann makes such thin cookies is that she receives praise for her superior product and this brings her a sense of satisfaction and personal gratification. Mary may excel in ironing collars because of the satisfaction received through the appreciation of her husband and sons, and the complimentary remarks of friends. She may also take pleasure in competing with the skilled workers of the laundry. Besides enjoying the preparation of food and the serving of meals, Jane gets much pleasure from the praise of her guests and family on her delicious food and beautiful table. She may also enjoy the friendly rivalry and competition with her friends at church

suppers and club luncheons. Mother who turns off so much work may like the satisfaction which comes with the feeling of accomplishment.

When are homemaking skills learned? Many of these skills are learned with very little effort, just by picking them up. Hearing standards discussed, watching operations carried forward in the home, and sharing responsibilities familiarize one with patterns of action and give experience in doing things. Skill in certain tasks may be acquired in scout work, in 4H club work, in secondary- and high-school classes, in vocational schools, and in certain college courses. Many skills, however, must be acquired by the homemaker in her own home. Although no studies have been made to determine the manner in which homemakers acquire manual skills, a fairly clear idea of this learning process may be obtained by examining studies that have been made on the learning of skilled motor performances.

ACQUISITION OF MANUAL SKILL

Experiments show that much of our learning is by trial and error and by observing facts. When confronted with the learning of a new task, we are likely to proceed in a haphazard manner, trying first one way and then another, observing results, varying the procedure, and gradually finding a method of reaching the goal. By trial and error combined with what has been learned by observation one builds up a fund of knowledge and manipulative skill that enables one to attack new problems with some degree of foresight.¹ "Foresight depends on memory, for the outcome of an act cannot be foreseen except by one who has had experience in performing similar acts and noting their results."²

Though many of the simple tasks can be mastered in a few trials, there are many complex activities which are not so easily learned. Studies that have been made of the acquisition of skill in such complex activities as telegraphy and typewriting throw considerable light on the manner in which different individuals acquire skill.

¹ Robert S. Woodworth, *Psychology*, pp. 291-318.

² *Ibid.*, p. 396.

In a typewriting study the day's record of a student was kept during a period of 150 days of practice to determine how rapidly he could acquire proficiency in typewriting. His improvement is shown in Figure 8.³ During the early stages of practice the number of strokes per minute increased rapidly and then much more slowly, giving a typical learning curve. The curve rose

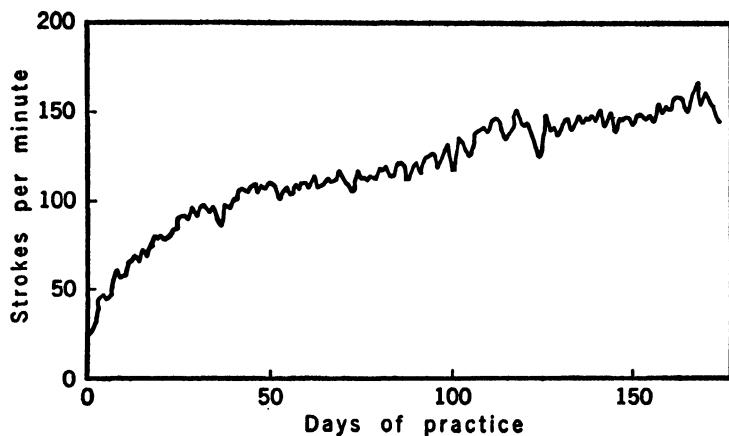


FIGURE 8. Learning curve of a young man in typewriting.

rapidly at first and flattened out near the "physiological limit" of the student, the limit of what his nerves and muscles could actually perform. Such a flat section in a learning curve followed by a second rise is called a plateau.⁴

According to experimenters in this field, a number of factors may affect the appearance of the plateau. Sometimes it is due to discouragement or carelessness, lack of attention and effort, lack of adequate motivation, lack of confidence, the complexity of the task, or the number of practice periods. Sometimes it may represent the true physiological limit of the individual performing the task, and the future rise to a higher level is then the result of improved methods.⁵

³ W. F. Book, *Psychology of Skill*, New York: Gregg Publishing Company, 1925, p. 18. Reproduced by permission.

⁴ W. L. Bryan and N. Harter, "Studies in the Physiology of the Telegraphic Language," *Psychol. Rev.*, Vol. 4 (1897), p. 49.

⁵ Woodworth, *op. cit.*, p. 320.

It was found that the student of typewriting acquires skill by improving his methods more than by increasing his speed. In typing, the first task is to learn the keyboard and where and with what finger to strike each separate letter. As soon as the sight of a letter calls up the proper letter-striking movements, the "letter-habit stage" has been reached. With further practice "word habits" are developed. At first the sequence of movements is controlled and directed by spelling out the word. In time, however, each familiar word comes to be written by a pattern of finger movements. As skill is developed, writing is done entirely by word and phrase patterns. With these larger patterns of finger movement, speed is increased and writing becomes continuous.^{6, 7}

MENTAL HABITS OR SKILLS

In learning typewriting certain mental habits of control are formed in conjunction with the habits of manipulation. These habits enable the learners to handle more successfully the problems involved in the learning itself. The most important of these mental habits are: (1) learning the most economical method of acquiring habits of manipulation or skills, (2) learning how to meet difficulties, (3) acquiring and maintaining a favorable attitude toward work, (4) learning to keep attention focused on the work at hand, (5) learning to economize effort. The typewriting tests showed that a large part of the progress was due to the mental habits of control. It is no doubt true that mental habits play an important role in the development of all habits of manipulation.⁸

The typewriting study showed further that an economical or short-cut method of acquiring manipulation skills was developed during the practice period which proved of value in the formation of all the special typewriting habits. All the habits of manipulation acquired in learning to typewrite are developed in much the same way. At first everything must be done in the greatest detail and with the greatest effort. As practice progresses, details

⁶ Book, *op. cit.*, pp. 25-28.

⁷ Woodworth, *op. cit.*, p. 321.

⁸ Book, *op. cit.*, pp. 89-99.

and processes no longer needed are gradually dropped until a single direct movement is evolved. This short-cut method results in a saving of both time and energy and in skilled, graceful movements.

One learns how to meet difficulties by mastering each one as it arises. Analyzing the problem, picking out the special difficulties, and attending to each until it disappears seems to be the best procedure.

The acquiring and maintaining of a favorable attitude toward typewriting takes considerable time. At first the learners tested felt a keen interest in the work and enjoyed doing it, but as practice continued the interest waned and the work seemed boring. As soon as greater skill was developed, however, the unfavorable attitude disappeared and new interest and pleasure were taken in the work.

The development of a habit of attention is closely associated with the development of a favorable attitude toward work. In the early stages of the typewriting practice period it was difficult for the learner to keep his attention focused on the work, but by the time expert skill was attained the habit of attention had been formed. The development of habits of attention is extremely important if the less economical ways of typing are to be discarded for new and better ways. Only in moments of intense interest and close attention does the learner progress from the lower to the higher levels of skill.

Economy in the use of effort is important, since much effort can be wasted in meaningless and unnecessary movements. As greater skill is acquired this difficulty is gradually overcome.

EFFORT USED IN ACQUIRING SKILLS

Anyone performing a new task uses considerable effort to overcome the difficulties experienced in doing an unfamiliar task. When the individual has passed the exploratory stage of learning, he begins to speed up. He pounds the keys on the typewriter, if he is learning to type; swings the broom, if he is learning to sweep; uses vigorous motions, if he is learning to dry the dishes; twists up his face and tenses the muscles of his arm, if he is learning to slice bread or cut cloth; and in other

ways shows the extra effort he is making. As he develops skill he uses less and less effort in performing the task.

Woodworth states that during the period when skill is being acquired the individual passes through three stages with reference to effort:

- “1. The exploratory stage.
2. The awkward and effortful stage.
3. The skilled and free-running stage.”⁹

HOMEMAKING SKILLS

In acquiring skill in homemaking activities the homemaker passes through the same stages of learning and effort that were experienced by the learner of typewriting. For instance, in learning to peel an apple, she must first learn how to hold the apple and paring knife, how to turn the apple and manipulate the paring knife in removing the skin. Naturally, the first motions are slow and jerky, and only a small amount of skin is removed at a time. The peelings are thick and uneven, and large portions of skin are left on the apple, which must be peeled off later. The learning of these different patterns of finger movements is similar to the development of “letter habits” in typewriting.

During the second stage greater effort is used, better control is gained, motions are smoother and the peelings thinner, more even, and longer. By sharpening the knife speed may be increased and results improved. This stage corresponds to the “word-habit stage” in typewriting.

In the third stage, greater skill is acquired and the peeling is done easily, quickly, and smoothly. The surface of the apple is free of skin and the peelings thin and in long lengths. The skill acquired at this period is similar to the “word-and-phrase stage” of typewriting.

The smoothness and speed developed in this third stage suggest a “learned motor sequence” similar to that developed in typing. The complex combinations of movements of both hands working together appear to move along almost automatically, once the paring of the apple is started. “All these motor patterns may depend on observation in the first instance, but continued

⁹ Woodworth, *op. cit.*, p. 384.

use seems to integrate them so closely in the nervous system that they get along with only a minimum of observational control."¹⁰

Acquiring skill in a more complex activity is illustrated in the making of an apple pie, which involves many separate acts of skill. The main acts are:

Building and watching the fire if wood or coal is used, or lighting the gas in the oven if gas is used, or turning on the current if electricity is used.

Peeling and slicing apples.

Measuring ingredients.

Mixing the pastry—cutting in shortening, adding water.

Rolling one-half the pastry.

Lining pan with pastry.

Filling crust with apples and the correct amount of sugar.

Rolling upper crust of pie.

Folding and making slits to permit escape of steam.

Moistening edges of lower crust with cold water.

Placing folded upper crust on filled lower one, opening out folded half after it is placed on pie.

Pressing edges together.

Trimming off surplus pastry and pressing edges again.

Using other devices to prevent juices from running over and burning.

Use of oven regulator.

All these acts must first be learned as units, but the operations must be synchronized or performed coordinately and with care to produce a perfect product. Learning each act of skill corresponds to the development of the letter habits in type-writing. When these skills are combined into the larger activity, skills similar to the word and phrase habits are gradually developed.

A close study of the operations used in making the pie will no doubt show that many unnecessary or waste motions have been incorporated in the acts performed. Every effort should be made to eliminate all waste motions at the very start before wrong

¹⁰ *Ibid.*, p. 325.

habits of work are formed. For example, having all the tools and materials to be used before one on the work table will save having to wash the pastry off the fingers before going to the cupboard to get the pie plate. A comparison of the number of superfluous movements made by a novice and an expert at pie-making would be very revealing. Planned actions prevent the loss of time and confusion in the performance of all homemaking tasks.

Acquiring skill in a still more complex activity is illustrated in meal preparation. During the first stage some degree of skill must be developed in the preparation of the different foods. This cannot be learned all at once, or even in a short time. As soon as some skill has been acquired the "food-preparation-habit stage" has been reached. This stage corresponds to the "letter-habit-stage" in typewriting.

With further practice different foods may be combined into a simple meal. Timing the preparation of each food so that the whole meal is ready to serve at one time is a difficult skill to master. At times some foods may be overcooked, others undercooked. The mental habits of control developed during this learning process are extremely important. As soon as the homemaker develops skill in combining the small patterns of action into a larger pattern of action, the "meal-habit stage," which is similar to the "word-and-phrase stage" of typing, is reached.

As practice continues and as greater skill is gained the preparation of all the food to be served in a meal flows along simultaneously, smoothly, and easily. Instead of thinking of only simple combinations of foods for meals, the homemaker learns to think of many new and different combinations. As time goes on she thinks not only in terms of meals, but also in terms of the day's meals, or even meals for a longer period.

In this complex activity, the mental habits of control and the managerial skills of planning and coordinating the various activities make it possible for the homemaker gradually to develop the numerous manual skills that are necessary.

TRANSFERENCE OF SKILL

The preceding discussion shows that practice brings improvement in the performance of all tasks that must be done. Does

the practice that one gets in doing one task give skill that can be carried over to other tasks? The investigations that have been made on the transfer of memory skill indicate that "the skill transferred consists partly in the habit of looking for groupings and relationships, and partly in the confidence in one's own ability."¹¹ Concerning the transfer of manipulation skills, Woodworth says, "In using any given tools and materials, the learner adjusts himself to the specific character of his particular job and is very likely not to discern any general principles that can be carried over to other jobs. Fortunately, however, it has been found that suitable instruction in principles of good management of such work, with a moderate amount of practice devoted to applying the principles, does build up a body of transferable ability."¹²

ACQUIRING SKILL IN MANAGEMENT

The acquisition of managerial skill enables the homemaker to use all the family resources more economically and effectively. Skill in management is developed through the making, carrying out, testing, and adjusting of plans for the use of the family resources as well as for the activities of the family and the work of the household.

In the setting up of standards or goals to be attained, and in the making and executing of plans to reach these goals, the homemaker is continually using her powers of observation, reasoning, and imagination. Through observation she utilizes the facts she has learned; by reasoning she sees the relations actually existing between facts; and through imagination she arranges recalled facts into new relations or patterns. Through plan building and plan testing, habit patterns of effective planning are gradually acquired. Once such planning habits are established, plans are quickly and easily made and executed. Skillful management in homemaking demands good mental grasp of the problems as well as energy and persistence.

¹¹ *Ibid.*, p. 362.

¹² *Ibid.*, p. 362.

IMPROVING METHODS OF PERFORMING HOMEMAKING TASKS

The elimination of useless movements through changes in methods of work is an effective way of economizing both time and energy. Improvement in the performance of any task usually means that the task is made easier and more satisfying because the improved method is a convenient one, permitting natural, smooth, and rhythmical motions. The previous discussion of skill showed that improvement in the method of performing a task is also one of the most effective means of acquiring greater skill.

FINDING THE MOST ECONOMICAL WAY OF PERFORMING TASKS

In industry the best way of doing a specific task is determined by a scientific study of the methods, materials, and equipment used. A motion study or analysis of the movements of the worker in performing the task is first made in order to find the best or most economical method, all factors considered. Motion-picture studies are frequently used to analyze the movements of the worker and to work out details of the new method.

After the best way for doing the task has been determined, a record of the methods, materials, and equipment to be used is written down and becomes standard practice. The time required for the average worker to do the task according to the practice established is determined by means of time studies. Stop watches are used to time the workers' performance. After tasks are timed all the workers are taught to perform the task according to the improved method.¹⁸

In homemaking every task can be performed in a number of ways. For instance, a kitchen floor may be cleaned on one's hands and knees, with a mop wrung out by hand, or with a mop wrung by means of some mechanical device, operated by the hand or foot. Each method requires the use of different motions, different muscles and tools, as well as different amounts of time

¹⁸ Ralph M. Barnes, *Motion and Time Study*, New York: John Wiley and Sons, Second Edition, 1940, pp. 1-4.

and energy. What may be the best practice for one worker may not be the best for another. Personal differences in physical and mental make-up and psychological reactions to the task naturally affect one's choice of method.

In determining the most efficient way of doing a task, various methods may be tried and studied. By observing the processes and motions involved in each method, the equipment and tools used, and the working conditions, the easiest, most economical method can be determined by each homemaker for her own situation.

A study of dishwashing methods made by Heiner and Vedder to discover the least waste in this household process shows one approach to this type of problem. After making careful investigation of the number of motions and the time required by five different methods, they found that washing the dishes once a day by hand, rinsing in hot tap water, and drying and storing in the drainer until the next period of use was the most economical of the methods tested.

TABLE X

AVERAGE NUMBER OF MOTIONS AND TIME REQUIRED TO WASH A DAY'S DISHES FOR A FAMILY OF FOUR ACCORDING TO METHODS SUBJECTED TO ANALYSIS*

Method	Motions	Time	
		Min.	Sec.
I. Washing by hand 3 times a day	1,954	38	8
II. Washing by hand once a day, air-drying	1,367	31	2
III. Washing by hand once a day, rinsing in hot tap water, drying and storing in drainer until next period of use	1,008	22	58
IV. Washing by portable machine once a day	1,164	26	44
V. Washing by stationary machine once a day	1,015	22	31

* M. K. Heiner and N. Vedder, "Studies in Dishwashing Methods," *J. Home Econ.*, Vol. 22 (May, 1930), p. 393.

Table X shows that this method averaged 1,008 motions and 22 minutes 58 seconds a day as compared with the usual practice of washing the dishes three times a day, which required 1,954 motions and 28 minutes 8 seconds a day. Washing the dishes once a day in a stationary machine required about the same

number of motions and time as the most economical method by hand.

A time and cost evaluation of dishwashing by different methods by Sater gives additional information and suggests another method of making such a study.

Table XI shows the average time spent in dishwashing with three kinds of equipment. According to the total time for doing the dishes, the dishwasher method saved 18.23 minutes per day or 9.16 hours per month of the time used by the hand method when the task was performed three times a day.

TABLE XI

AVERAGE TIME* FOR ONE PERSON WASHING THE DISHES THREE TIMES A DAY FOR A FAMILY OF FIVE†

Method	Breakfast 56 pieces	Lunch 60 pieces	Dinner 70 pieces	Total per Day	Comments
Hand washing	Min. 14.83	Min. 15.30	Min. 20.99	Min. 51.12	Satisfactory
Sink spray	13.96	16.36	19.32	49.62	Unsatisfactory
Machine	9.06	9.80	14.00	32.89	Satisfactory

* Average of five tests after procedure was standardized.

† V. Enid Sater, "Time and Cost Evaluation of Dishwashing by Different Methods," *Wash. Agric. Expt. Sta. Bul.* 303, 1934, p. 15.

TABLE XII

COST OF DIFFERENT EQUIPMENT* USED IN THREE DISHWASHING METHODS†

Items	Hand Method	Spray Method	Machine Method
Original	\$2.50	\$7.50	\$165.00
Cost of original investment per year	0.50	0.75	16.50
Interest 6 per cent	0.15	0.45	9.90
Yearly repair	....	0.15	1.00
Total for year	0.65	1.35	27.40
Cost per month	0.05	0.11	2.28

* The cost of the teakettle, cart, sink, and range is not included in these data. The cost of the towels is the same for all methods.

† V. Enid Sater, "Time and Cost Evaluation of Dishwashing by Different Methods," *Wash. Agric. Expt. Sta. Bul.* 303, 1934, p. 16.

Since the cost of equipment so frequently influences what can be done in improving methods of work, Table XII, which shows the cost of using different kinds of equipment for dishwashing, is of particular interest. The cost of the original investment per year is based on a five-year life for the equipment used in the hand method and a ten-year life for the spray and machine. The actual life of equipment depends on its use and care. Such a cost study may be made by any homemaker before investing in a new piece of equipment.

Although the carefully controlled methods used in making time and motion studies in the laboratory and factory cannot be followed in the home, many simple studies can be made in connection with the performance of homemaking tasks to determine ways of lowering the time, energy, and fatigue costs. A simple method of making such a study is illustrated in the following plan for comparing the time costs of two methods of cleaning.

TIME STUDY IN CLEANING A LIVING ROOM, DINING ROOM, AND HALL

Equipment	Operations	Methods	Time		
			Test 1	Test 2	Test 3
Vacuum cleaner	Using cleaner	1. Rooms cleaned separately			
Dust cloth	Dusting				
Floor mop	Using floor mop	2. Rooms cleaned consecutively			

When the shortest time for doing the task in a satisfactory manner remains about the same, the method used may be considered the most economical way of performing the task under the given situation. Frequently studies of this kind show the need to replace old tools with new ones which will do the work more efficiently. Besides helping to find the most economical method of doing tasks, such studies add new interest to routine tasks and develop the habit of thinking of motion economy in the performance of all homemaking activities.

ECONOMICAL ASPECTS OF RHYTHM

In studying methods of work some attention should be given to the economical aspects of rhythm. Rhythm is a fundamental process in everyday life and it is well to consider how we may use it to increase our efficiency in work. Many of our bodily processes go on rhythmically. Our heart beats in rhythm, we breathe in rhythm, we tend to work rhythmically, and we walk and dance rhythmically. "There is fundamental economy in rhythmical performance in that we get a repetition of the act without necessarily a repetition of the impulse. We do not have to make a decision each time. When we take a stroll we do not have to think 'left, right, left, right,' for our successive steps. The taking of one or two steps is sort of a stimulus for taking the next few, and we do not have to make a decision each time. Some of the excitement of the first act serves as a stimuli for succeeding acts."¹⁴ In the absence of rhythm, conscious effort has to be made to carry on work, which in addition is not characterized by the smooth flow of coordinated movement typical of rhythmic work.¹⁵ Thus it will be seen that if a performance can be made rhythmical it will involve less decision and a somewhat greater economy of effort.

This principle of rhythm has many applications in the home. If we watch a skilled homemaker work, we will notice the rhythm and ease with which she moves and how one motion seems to flow into the next without any conscious effort. There is a rhythmical movement in the swing of the broom, in the operation of the vacuum sweeper, in the washing of dishes, in the beating of batters, in the slicing of vegetables, and in the rolling of pastry—in fact in every skilled operation. Some homemakers work fast, others more slowly, but it will be seen that each one has a natural swing or rhythm peculiar to herself.

In repetitive activities a continuous movement is generally less fatiguing than several angular movements, or straight-line motions involving sudden and sharp changes in direction, although both may be rhythmical. With the circular movement

¹⁴ H. E. Burtt, *Psychology and Industrial Efficiency*, pp. 121-122.

¹⁵ C. S. Meyers, *Industrial Psychology*, New York: The People's Institute Publishing Company, 1925, p. 55.

the effort of starting and stopping each stroke is completely obviated. Whenever successive movements can be arranged so that one movement passes easily into the next, and so that each ends in a position favorable for the beginning of the next, there is a definite economy of effort in the rhythmically made motion.¹⁶

An investigation of working methods in a coal mine showed that coal miners trained to swing the pick in circular fashion instead of backwards and forwards in a straight line increased their output 16 per cent and also were less fatigued.¹⁷ Similar results were shown in a study made in a candy factory, where the process of dipping involved three changes of direction and stopping the hand three times. The substitution of a new method which made the motion rhythmical and circular, although somewhat longer, increased the output 27 per cent, apparently with no increase in fatigue over the old method.¹⁸ Such studies as these suggest that in similar ways the homemaker may use motion economy in improving methods of work.

In homemaking the large number of tasks that must be done each day as well as the different processes involved in each task cause frequent changes both in posture and in movements of the worker. Experience shows that frequent changes from one type of muscular work to another require more time and effort and are more fatiguing than the performance of repetitive work. When changes are rapid there is little time for the worker to make the necessary nervous and muscular adjustment to the new task, to get warmed up, before it is necessary to go on to the next. As a result rapidly changing work can never flow along as easily, smoothly, and effortlessly as the tasks that are repeated or continued for some time. For this reason a plan of work that allows the continuation of one process or task as long as possible will not only save motions and time but also be far less fatiguing to carry out. Moreover, this method of work saves

¹⁶ Burtt, *op. cit.*, pp. 122-123.

¹⁷ E. Farmer, S. Adams, and A. Stephenson, "An Investigation in a Coal Mine," *J. Natl. Inst. Industrial Psychology*, Vol. 1, No. 4 (1922), pp. 125, 178, 232.

¹⁸ E. Farmer, "The Economy of Human Effort in Industry," *J. Natl. Inst. Industrial Psychology*, Vol. 1 (1922), pp. 18-22.

the extra handling of tools and materials that is necessary when work is frequently changed.

This principle of motion economy applies to the performance of all homemaking tasks and the making of time and work plans. For instance, in the cleaning of the house, the continuation of each of the processes of sweeping, dusting, and mopping the floor throughout the rooms on each floor is an easier method than cleaning each room separately. The scraping and stacking of dishes before washing and wiping make the job of dishwashing less tiring and more interesting than when it is done haphazardly. The washing of the tile hearth and the hall and kitchen floors consecutively allows this work to flow along in a rhythmic manner. Likewise the time and work plan which avoids scheduling too many kinds of work on the same day, and which allows the work in related areas of the house to be completed before the next work is started, saves not only nervous and muscular adjustment but also many unnecessary motions in the day's work.

EFFECT OF FATIGUE ON RHYTHM

Fatigue seems to break up the smooth rhythmical movements of the worker. In a study made of polishing silverware in a factory it was found that during the morning the polishers worked at a uniform rate and each piece of work was finished at regular intervals. In the afternoon the work slowed down and the pressure used in holding the pieces of silverware against the polishing wheel increased. More strokes were used and the time for polishing each piece was greater than in the morning. Thus it appears that fatigue breaks up the rhythmic pattern and disturbs the coordination that makes for rapid and easy work. The tired worker not only works more slowly but also has less control of the motions he uses.¹⁹

¹⁹ E. Farmer and R. S. Brooke, "Motion Study in Metal Polishing," *Ind. Fatigue Research Bd., Report 15, 1921*, pp. 1-65.

CHAPTER X

CONTROLLING TIME, ENERGY, AND FATIGUE COSTS THROUGH IMPROVING WORKING CONDITIONS

The improvement of working conditions within the home is an effective method of reducing time, energy, and fatigue costs in homemaking. Step-saving kitchens; conveniently placed utensils and supplies; comfortable heights for all working surfaces, equipment, work stools, and chairs; efficient working equipment; well-lighted work surfaces; and conveniently arranged houses make the work easier in all homes.

STEP-SAVING ARRANGEMENTS

The poor arrangement of equipment, utensils, and materials in the home is a frequent cause of needless waste of time and energy in the performance of many homemaking activities. A study of the present kitchen arrangement may often suggest rearrangements that will result not only in the saving of steps but also in better methods of work.

The possibilities for step-saving arrangements through rearrangement of equipment are shown by an Iowa study. By wearing a pedometer for a week while doing her kitchen work, an Iowa farm homemaker learned that she walked an average of 5 miles a day, or 1,825 miles a year. By rearranging the equipment in her kitchen she reduced the distance to $2\frac{1}{2}$ miles a day, or just half the distance walked before the changes were made. It was also found that the work could be done in one hour less time each morning.¹

Another study which illustrates the release of much time and the elimination of many steps by the use of improved kitchen equipment and more efficient arrangement has been made by Muse. The steps and time taken by a homemaker in meal prep-

¹ Frances Pew, *The Step-saving Kitchen*, Iowa State College Extension Service, 1934, pp. 6-10.

aration and in clearing away afterwards were recorded (Table XIII). The kitchen was then rearranged and the number of steps and time spent in the same activities were again measured. The saving of 2,191 steps and 1 hour 3 minutes of time each day which was achieved in the improved kitchen indicates to what extent time, energy, and fatigue costs can be controlled by convenient arrangement of kitchen equipment.

TABLE XIII

TIME SPENT AND STEPS TAKEN BY A HOMEMAKER IN MEAL PREPARATION AND IN CLEARING AWAY AFTER MEALS*

Preparing and Serving Breakfast	Breakfast Dishes	Preparing and Serving Dinner	Dinner Dishes	Preparing and Serving Supper	Supper Dishes	Total Steps	Total Time
Min. Steps	Min. Steps	Min. Steps	Min. Steps	Min. Steps	Min. Steps		Hr. Min.

Original Layout

33	528	51	702	60	713	39	609	30	472	15	191	3,215	3	49
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Rearranged Kitchen

28	177	36	209	44	239	22	156	27	164	10	79	1,024	2	46
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* Marianne Muse, "Kitchen Equipment and Arrangement," *Vt. Agric. Expt. Sta. Bul.* 375, 1934, p. 15.

In another study made by Redfield, 28 different arrangements were tested for efficiency in a kitchen 12 by 15 feet. Four tasks were performed in each arrangement, and the comparative efficiencies of the different arrangements were determined by the distance that it was necessary to walk in each arrangement in performing each task. The maximum distances walked in the kitchen with different arrangements of the same equipment are shown in Table XIV. The maximum distance was nearly one and one-third times the minimum necessary when the equipment was efficiently arranged.

An efficiency test of a new kitchen made by Gilbreth for the

TABLE XIV

MAXIMUM AND MINIMUM DISTANCES WALKED IN A 12 BY 15 FOOT KITCHEN IN PERFORMING FOUR PRESCRIBED TASKS*

Task	Distance in Feet	
	Maximum	Minimum
Making a plain cake.....	89.5	57.0
Making an apple pie.....	90.5	63.0
Preparing a meal.....	333.5	259.5
Preparing meals for a day.....	823.0	639.0
Total.....	1,336.5	1,018.5

* Gail Redfield, "Efficient Kitchen Arrangements," *Purdue Expt. Sta. Bul.* 418, 1937, p. 5.

New York Tribune Institute gave other interesting results. A shortcake was prepared in the kitchen with the equipment arranged without any special thought for convenience. A record was made of every motion and every step taken in the process of preparing, cooking, and cleaning up. Then an exactly similar shortcake was prepared in the kitchen rearranged for efficiency. With the new arrangement, the number of kitchen operations was cut from 97 to 64. The number of actual steps was reduced from 281 to 45.²

The possibilities for step-saving arrangements in farm kitchens are shown in the study by Wilson. In this study, plans were tested to determine what storage space was needed, what arrangement of the kitchen was most desirable, and what size the room needed to be. Estimates of the miles of walking required during the year in each of the kitchen plans developed showed that a large number of desirable step-saving arrangements were possible, for kitchens in which different fuel was used for cooking as well as for kitchens with and without space for serving meals.³

² New York Herald Tribune Institute, *The Herald Tribune Practical Kitchen*, 1930.

³ Maud Wilson, "Planning the Kitchen," *Ore. Agric. Expt. Sta. Circular* 131, 1939, pp. 1-32.

These kitchen efficiency studies indicate that equipment, utensils, and materials should be located to permit the best sequence of movements. For instance, the most efficient arrangement in the kitchen follows the logical sequence of food preparation from the refrigerator to the mixing center or food-preparation center or to the sink, then to the stove and from there to the dining room. Efficient kitchen arrangements are discussed in Chapter XX.

PLACES FOR TOOLS AND MATERIALS

Time and motions may frequently be reduced by the rearrangement of materials and tools used in the kitchen. A study made by Pew indicates the advantages of assembling the utensils and food materials in a kitchen cabinet or at the mixing center (Table XV). According to the results of this study one of the best ways to avoid lost motion and time is to store food materials and utensils very near the place where they are used.

TABLE XV

NUMBER OF STEPS AND TIME SAVED BY USING A KITCHEN CABINET*

Preparation of	Number of Steps without Cabinet	Steps with Cabinet	Steps Saved	Time Saved
Breakfast	446	117	349	10
Dinner	651	142	509	15
Supper	996	262	734	10
Coffee	100	15	85	41.5
Mashed potatoes	110	55	55	5
Toast	55	10	45	35
Cereal	60	15	45	16

* Frances Pew, *The Step-saving Kitchen*, Iowa State College Extension Service, 1934, p. 5.

A definite place should be provided for all tools and materials. When everything has a place and is kept in its place, no time is wasted in looking for things. Definite and convenient storage spaces for materials and tools aid the worker in habit formation and help her to do the work with the minimum conscious mental effort. When tools and materials are stored in dis-

orderly manner or scattered, the worker must hunt around in order to locate whatever is needed. When the tools and materials are conveniently arranged, the worker with little practice, will perform the task with the proper sequence of movements and with the minimum expenditure of time and effort.

COMFORTABLE HEIGHTS FOR KITCHEN WORK SURFACES

The heights of kitchen work surfaces are important in the making of plans for energy-saving kitchens, since equipment of the proper height permits good working postures. When the working surfaces in the kitchen are too low, the worker must stand in a stooped, uncomfortable position while working. If the surfaces are too high, the arms and shoulders must be raised to make the adjustment to the height. Adjustments of this kind cause unnecessary strain and fatigue.

A GOOD WORKING POSTURE

Good posture in the performance of any task may be defined as the position which requires the expenditure of the smallest amount of energy.⁴ A good standing posture is one in which the head, neck, chest, and abdomen are balanced vertically one upon the other, so that the weight is carried mainly by the bony framework and a minimum of effort and strain is placed upon the muscles and ligaments. When the body is well balanced in the standing position, the head will be directly over the feet, and the center of gravity will pass through the middle ear, the shoulder, the hip, the outside of the knee, and the outside of the ankle.

A good sitting posture for work is a well-balanced and poised position. The weight is carried by the bony support of the skeleton, thus relieving the muscles and nerves of all strain. The poise is such that the minimum of adjustment is necessary for such action as the work may demand. The line of gravity falls through the middle of the shoulders, hips, and seat bones.⁵

Poor standing and sitting postures may result in permanent

⁴ Tessie Agan, *The House*, Philadelphia: J. B. Lippincott Company, 1939, p. 261.

⁵ Henry Eastman Bennett, *School Posture and Seating*, Boston: Ginn and Company, 1928, pp. 9-16.

changes in the spine, in positions of the joints, ligaments, and muscles, and in the location of the organs of the body. Such changes produce strains and tensions which increase the fatigue costs of homemaking tasks.

EFFECT OF WORK-SURFACE HEIGHTS ON ENERGY COSTS OF TASKS

The energy cost studies made by Swartz show how the height of working surfaces and equipment in the home affect the amount of energy expended in the performance of certain homemaking tasks. The data in Table XVI indicate that the height of the working surface makes less difference in the amount of energy expended in the beating of mixtures where some of the adjustment to the different heights can be made in the angle of the elbows than in the kneading of dough or the ironing of napkins where the adjustment to the low heights must be made by bending the back and stooping the shoulders. Hanging clothes from a basket on the floor, which necessitates bending over from the waist to pick up the clothes and clothespins from the floor and moving the basket about, requires far more energy than hanging clothes from a utility table which eliminates all bending and lifting.

TABLE XVI

EFFECT OF HEIGHT OF WORK EQUIPMENT ON ENERGY COST OF HOMEMAKING TASKS*

Activity	Average Per Cent above Resting		
	Low	Medium	High
Beating.....	54.8	52.0	51.5
Kneading.....	133.0	119.0	116.0
Ironing napkins.....	82.2	77.1	70.2
Hanging clothes with basket on the floor.....	184.0		
Hanging clothes from utility table.....			118.0

* Compiled from V. W. Swartz, "The Human Energy Costs of Certain Household Tasks," *Wash. Expt. Sta. Bul.* 282, 1933.

The effect of work-surface heights on the energy cost of dishwashing has been studied by Langworthy. Table XVII shows

that the energy requirement is considerably greater at the lower heights; the energy is smallest when the height fits the worker.

TABLE XVII
EFFECT OF HEIGHT OF WORK SURFACE ON ENERGY
COST OF DISHWASHING *

Height from Top of Pan to Floor	Energy Expended per Hour
Cm.	Calories
75	32.3
92	24.9
107	22.6
117	22.9

* C. F. Langworthy, *Report of Work on Energy Expenditures for Sewing and Some Other Household Tasks*, pp. 621-625.

From these studies we may conclude that:

When body or posture adjustments must be made by the worker to the height of the working equipment, the energy cost of performing the task is increased.

When working equipment is planned or adjusted so that good posture is possible, work may be done with less effort.

TESTING INDIVIDUAL WORK-SURFACE HEIGHTS

Good standing posture is possible only when the height of the working equipment is built or adjusted to fit the physique of the worker. The most satisfactory method for the worker to determine the best work surface heights for herself is to test the different heights and find those at which tasks can be done most comfortably. To make this test Gilbreth states: "The worker should stand erect with arms comfortably relaxed from the shoulders and with the elbows bent. She will find the most comfortable working level one high enough to be used without stooping, but not high enough to cause her to raise the hands above the level of elbows."⁶

According to the data in Table XVIII on preferred work surface heights, prepared by Carter, a height of 33 inches seems the

⁶ Lillian Gilbreth, *The Kitchen Practical*, New York Brooklyn Borough Gas Company, 1930.

TABLE XVIII
PREFERRED WORK SURFACE HEIGHTS*

Height of Person	Surface Height Preferred		
	Minimum	Maximum	Average
Under 5 ft. 4 in.	Inches 30.50†	Inches 33.00	Inches 32.10
5' 4" to 5' 4½"	32.50	34.00	33.10
5' 5" to 5' 5½"	32.50	34.00	33.00
5' 6" to 5' 6½"	32.50	33.50	33.20
5' 7" to 5' 7½"	32.50	34.00	34.56
5' 8" to 5' 8½"	32.75	36.00	35.70
5' 9" and above	35.00	36.50	

* Dean G. Carter, "Studies in the Design of Kitchens and Kitchen Equipment," *Ark. Agric. Sta. Bul.* 276, 1932, p. 12.

† One unusually low preference, next lowest, 31.6 inches.

most satisfactory for the person of average height. Mason reported similar results in an unpublished study on work surface heights.⁷

Wilson, Roberts, and Thayer found in their studies of working-surface heights that homemakers prefer work surfaces of different heights for performing different tasks.⁸ They report that the preferred height of the bottom of the sink for dish-washing was 32½ inches from the floor. When the counters on either side of the sink are used in food preparation, however, the preferred height of the bottom of the sink was 1½ inches lower, or 31 inches from the floor. This makes the adjoining work surfaces about 36 inches in height, if they are built on a level with the rim of the sink, which is a little too high to use for a mixing table, for which the preferred height was 32 inches. A special lower surface for beating and stirring mixtures may be provided by placing a rubber mat on the bottom of the sink, or

⁷ Mary Mason, Unpublished study quoted in *Household Management and Kitchens*, President's Conference on Home Building and Home Ownership, 1932, p. 204.

⁸ Maud Wilson, Evelyn H. Roberts, and Ruth Thayer, "Standards for Working-Surface Heights and Other Space Units of the Dwelling," *Ore. Agric. Expt. Sta. Bul.* 348, 1937, p. 37.

a special table or working surface of the preferred height may be used.

Some of the dimensions of equipment found in this study to be best suited to the requirements of the average homemaker are given as follows:

PREFERRED HEIGHTS OF WORKING SURFACES, WORKER STANDING*

<i>Working Surface</i>	<i>Height in Inches</i>
Floor of sink	$32\frac{1}{2}$
Mixing table	32
Pull-out pastry board	$33\frac{1}{2}$
Bottom of sink 5 inches or more deep when drainboard is used as mixing table	31
Ironing board	$32\frac{1}{2}$

* Maud Wilson, Evelyn H. Roberts, and Ruth Thayer, "Standards for Working-Surface Heights and Other Space Units of the Dwelling," *Ore. Agric. Expt. Sta. Bul.* 348, 1937, p. 37.

HEIGHTS AND DESIGNS OF WORK STOOLS AND CHAIRS

A stool or chair of the proper height and type to permit good sitting posture makes it possible for the worker to sit down while doing such tasks as washing dishes, preparing vegetables and fruits at the sink or work table, and ironing clothes at a board or electric ironer. A comfortable chair should induce a correct sitting posture without physical strain.

A comfortable work chair has the following features:^{9, 10}

The chair or stool should permit the worker to sit comfortably with both feet resting on the floor or a footrest.

The seat should be low enough so that there will be no pressure from its front edge on the area behind the knees. A seat that is too high tends to interfere with these nerves and blood vessels, thereby causing discomfort and restlessness.

The seat should be shallow enough—14 to 15 inches—to permit the worker to sit back in the chair and bend the knees without any feeling of pressure under the knees. A shallow seat allows the worker to bend at the hips when leaning forward. A deep seat causes the worker to slump and bend at the waistline and drop the shoulders forward.

⁹ *Ibid.*, pp. 27-30.

¹⁰ Henry Eastman Bennett, *op. cit.*, pp. 49, 51-61.

A seat should have a moderate backward slope to prevent the worker from sliding forward.

The seat should be sufficiently wide to accommodate the body comfortably.

A back rest should be provided to give support to the small of the back. A chair should not have a horizontal support or bar lower than 6 inches above the seat. This space allows the worker to sit back in the seat so that the small of the back receives proper support. A back rest 3 to 4 inches in width gives ample support for a kitchen work chair or stool. If the back is adjustable it can be fitted to the back of the worker.

A stool should be adjustable in height so that it can be adjusted to the height that allows the worker to sit comfortably with both feet resting on the floor or footrest and that fits the height of the working surface.

The study by Swartz on the energy costs of paring potatoes while standing and while sitting indicates that the design of the stool or chair used is important if there is to be a saving of energy in sitting at work. She found that paring potatoes while sitting in a kitchen chair with a pan in the lap required energy of 43 per cent over resting, paring potatoes while standing required 50 per cent above resting, but paring potatoes while sitting on a stool at which it was not possible to put the knees under the table and which necessitated turning the body at the waist in order to work over the pan on the table required energy of 54 per cent above resting (Table V, p. 70). It is apparent that an uncomfortable position on the stool increased rather than decreased the energy expenditure above that of standing.¹¹

In their study of stool and chair heights, Wilson, Roberts, and Thayer found that the position of the worker seated on a stool at a table or sink is never very comfortable, since it is difficult to find a stool of the right height to fit the worker and the design of the table or sink. In making their measurements they used a stool of a height that brings the under forearm of the worker on a level with the sink rim.

Their measures showed that 30 inches is the most useful height for a stool to be used at a sink 7 inches deep. The dis-

¹¹ Swartz, *op. cit.*, p. 11.

tance from the seat to the footrest is about the same as that for the work chair, 15 to 16 inches. Adjustable stools with adjustable footrests would make it possible to adjust any stool to fit any height of working surface in the kitchen.

The height-under-knee measure taken from heel to bend under knee to determine the most comfortable height of the work chair of the average homemaker shows that this chair should not be more than 16 inches at the point just back of the front edge where it is the highest. The width of the chair that appears to be most comfortable is from 14 to 16 inches.¹²

The maximum heights and the minimum width of working chair and stool as well as the preferred heights of equipment used by homemakers while seated in a work chair were reported by Wilson, Roberts, and Thayer as follows:¹³

EQUIPMENT	INCHES
Maximum height of seat of work chair	16
Minimum width of seat of chair or stool	14
Height of seat of stool for use at sink	
Sink 8 inches deep.	31
Sink 7 inches deep.	30
Sink 6 inches deep.	29
Sink 5 inches deep.	28
Kitchen planning desk	25
Mixing table.	24
Ironing board.	24
Sewing table.	24

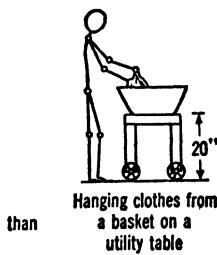
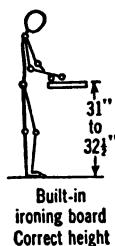
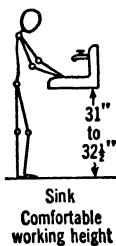
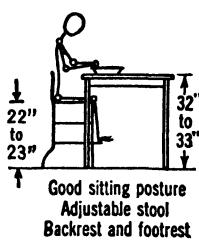
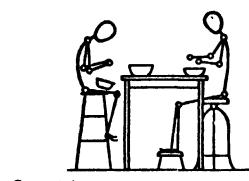
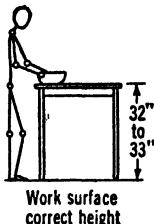
LENGTH OF EQUIPMENT HANDLES

The length of the handles of floor mops, brooms, floor brushes, vacuum sweepers and attachments, carpet sweepers, and other long-handled equipment affects the amount of energy used in cleaning tasks, but as yet no energy cost studies have been made to show how much.

When the handle on a piece of equipment is the right length for the task to be done, a good posture can be maintained by the worker in using it. If the handle is too short the worker has to stoop over and as a result uses more effort in doing the task.

¹² Maud Wilson, Evelyn H. Roberts, and Ruth Thayer, *op. cit.*, p. 29.

¹³ *Ibid.*, p. 37.



To maintain good posture while working—standing or sitting—adjust each working height to your own. The correct posture is shown in the drawings, and the preferred average heights are given for the various pieces of equipment.

If the handle is too long it is more difficult for the worker to grasp the tool and exert the pressure necessary in cleaning.

Well-designed long-handled equipment makes it possible for the homemaker to mop, sweep, and dust the floor, and clean the rugs and carpets in a comfortable working position and with the least amount of effort.

PURCHASING EFFICIENT WORKING EQUIPMENT

The purchasing of efficient working equipment is one of the most common methods by which homemakers may control time and energy expenditures in homemaking. The use of better tools is also one means of improving methods of doing work. Efficient working equipment for every task in the household should be the goal of all homemakers who are trying to conserve time and energy. The selection of such equipment is discussed in Chapter XXI.

Equipment which is technically inadequate, such as the egg beater that sticks, the paring knife that won't hold an edge, the ironing board that rocks, the dust mop that comes off the handle, or equipment of the wrong shape and size, such as the washing machine, oven, or dishpan that is too small or the mixing bowl of a shape that tips or is hard to clean, is not only wasteful of time and energy but also a very common source of nervous and emotional fatigue.

WELL-LIGHTED WORK SURFACES

The lighting, both natural and artificial, of the working areas in the house is of particular importance since glare from the sun or from electric lights causes discomfort, interference with vision, and emotional as well as eye fatigue. Inadequate light causes similar difficulties. Both conditions interfere with good vision, reduce one's working efficiency and pleasure in doing tasks, and frequently are the cause of accidents.

A sunny window over the working surface or sink in the kitchen unless protected by an awning or Venetian blind is very tiring to the eyes. Artificial lights placed too near the worker or near the line of vision are also fatiguing to the eyes. The best way to avoid artificial light glare in working areas is to place

the light some distance above the eye level. The glare may be offset by means of a frosted or etched glass globe over the light or by indirect lighting. The diffused or reflected light is softer and more uniform, and the shadows are less pronounced.

In a medium-sized kitchen with light-colored walls and ceiling, a central light enclosed in a frosted or etched globe gives ample light. In a larger kitchen two ceiling lights or a central ceiling light and another properly shaded light directly over the working surface or sink are necessary for efficient lighting.¹⁴

BETTER-PLANNED HOUSES

The proportion of time and work claimed by housekeeping may be decreased to a large extent in new houses if they are carefully planned and sometimes in houses already built by making simple changes. The arrangement and relation of rooms, the location of hallways, stairs, and storage places—all of which determine the lines of travel through the house or the steps that must be taken in working and caring for the house—should be carefully planned in order that time and energy costs may be reduced to a minimum.

In homes already built a careful study of the lines of travel may suggest ways in which changes can be made to reduce travel costs. Additional storage space or better utilization of present space frequently saves steps. Sometimes the removal of a partition or door, or the putting in of a door or window, permits changes in the arrangement of working equipment which will mean a great saving of time and energy in doing work. Other suggestions for planning and changing present plans may be found in Chapter XX.

¹⁴ Tessie Agan, *op. cit.*, pp. 457-460.

CHAPTER XI

CONTROLLING TIME, ENERGY, AND FATIGUE COSTS THROUGH USE OF PERSONAL HELP AND COMMERCIAL AGENCIES

Many homemakers shorten their working day by turning some of the work over to members of the family, paid helpers, and commercial agencies. Some homemakers depend entirely upon family help, some upon family help and commercial agencies, while others use all the facilities available.

FAMILY HELP

The amount of help family members contribute varies widely from home to home. In one home, for example, the father and children may find both satisfaction and pleasure in helping with certain homemaking activities. In another, the family's interest may be in activities outside the home and help may be employed to free the members of the family from home responsibilities.

The degree to which both the father and children share in the daily and seasonal activities of the home is reflected in many ways in the time- and energy-spending pattern of the homemaker. The child's early training, although it takes time, may be a real source of help to the homemaker as the child grows older. When children are trained to be independent, to amuse themselves, to stay at home and off the street or highway, some of the homemaker's time and energy is freed from child care for other activities.

The tasks that the growing children can do about the home are numerous. Besides assuming responsibility for taking care of personal clothing and possessions such as toys, play equipment, books, and work tools, children may help with running errands, caring for the younger children, dishwashing, food preparation, meal planning, cleaning, washing basement and recreation-room floors, mending and sewing, sweeping walks,

cleaning porch and garage floors, caring for the yard and garden, and doing simple repair jobs about the house. If the family lives in the country, many more tasks may be added to this list.

Boys frequently enjoy the more vigorous tasks, while girls often prefer those in which they have the companionship of their mother. When work is divided among children on the basis of their age and ability, the results are more likely to come up to acceptable standards.

In many homes responsibility is more easily assumed when plans are made in advance. The friction which sometimes arises over children's helping with homemaking tasks is often due to failure to make plans for doing the work at times that meet the convenience of the children. Requests which require children to leave an exciting game with friends, or some highly absorbing activity such as building a house of blocks or a model airplane, may bring violent protests, while a simple plan discussed and made in advance may synchronize work and play so that both may be enjoyed.

Willingness on the part of parents to adjust their plans and occasionally to share or take over tasks ordinarily carried by children helps to build a fine working spirit within the group. Children naturally imitate the spirit with which their parents manage and do their jobs. If they do their tasks well and happily, the child is more likely to feel a joy in sharing the responsibilities and work of the home.

The amount and kind of help that can be given by the father depends largely on the time he has at home and on his interests and abilities. For many men, doing things about the house, playing with the children, making toys and furniture, or gadgets for the house provide not only relaxation but also an opportunity to share in the creative activities of the home. Although the amount of help each member of the family can give each day may be small, the fact that the responsibility for certain tasks is carried by someone else is a great mental release for the homemaker. Mothers sometimes fail to appreciate this aid until the father or children are away from home or too busy to carry the usual responsibilities.

EMPLOYED HELP

When there is more work to be done than can be accomplished with the help of the family, part-time or full-time help may be the solution to the problem. Part-time service, a few hours of work each day or once or twice a week, is often all the extra help that is needed and in many places is the only type of help available. Full-time help, although it may be needed, usually is too costly for the majority of families.

The amount of work that can be done by a paid worker depends both on her ability and training, and on her willingness to assume responsibility. The working-out of satisfactory relationships between the family and the worker is important, since no worker can do her best if she is dissatisfied with her living and working relationships in the home, or her pay or hours of work, or if the family fails to cooperate. The homemaker who takes the time to get acquainted with the worker and to learn what she is able to do, who talks over plans and standards for doing the various tasks, who helps the worker see her role in family living, and who expresses appreciation of work that is well done usually has little difficulty in working out desirable employer-employee relationships. When this is done the worker is more likely to feel a responsibility for her share of the work in the home and to be more willing to carry it happily and in an efficient manner.

The problem of employer-employee relationships is one to which all homemakers who employ help should give careful study. In considering her responsibilities as an employer, each homemaker might well ask herself: Why is it difficult to obtain competent help? What is a fair hourly or weekly wage? What is a fair working day for full-time help? Do I have the right attitude toward my help? Do I try to help them improve their methods of work? Do I take a personal interest in their problems? Am I fair and consistent in my requirements?

In discussing the problems of the employer-employee relation in household employment and the effort that is being made to solve some of these problems, Watson and Wells summarized the situation as follows:

"In well-managed homes, employers are performing an important management function, based on the first element of sound management—recognition of the difference between a labor relationship and a family or personal relationship. Employers realize that their employees are members of a community, citizens of the same democratic society as their employers, and worthy of respect, consideration, sound working and living conditions, and opportunity for advancement.

"There are many homes not so well-managed. Efforts are being made to better conditions. In other fields of management better conditions have come about largely through education of public opinion, legislation, organization and training. Government as well as private national and local agencies have been working to improve conditions through these varied methods. Community groups, composed of representatives from social and educational organizations, have promoted interest through studies, talks, panel discussions, written material and so on and through the proposals for a voluntary agreement between employer and employee.

"Schools are attempting to train household workers. The best training projects require at least minimum conditions of work from the employers to whom they refer the workers and a careful check is made through planned follow-up visits.

"Little has been accomplished so far through legislation. In only one state do household workers come under a sixty-hour-week law. The exclusion of any large group of workers from social security measures will give rise to a further tendency to abandon the occupation on the part of skilled and competent persons.

"Since the depression a number of associations, clubs and unions of household employees have been organized. There are seven known unions.

"Today employers complain of their inability to secure efficient workers. Competent workers can be attracted into the field of household employment when sound management and healthy attitudes toward household employees more generally prevail."¹

¹ Amey E. Watson and Dorothy P. Wells, "Well-Managed Employer-Employee Relationships in the Home," *Home Management Papers*, 7th International Management Congress, Baltimore: The Waverly Press, 1938, p. 63.

USING COMMERCIAL AGENCIES

The various commercial agencies outside the home are used by many homemakers to free time for other activities. Bread-making, laundering, canning, and clothing construction are the four tasks most frequently turned over to commercial agencies.

The extent to which the baking of bread in homes of different types is being superseded by the commercial bakery is shown by the time studies of the Bureau of Home Economics. According to the data in Table XIX only 37.4 per cent of the farm homemakers baked any bread at home, and in the larger cities, only 6.5 per cent of the homemakers baked their own bread.

TABLE XIX

USE OF HOMEMADE AND BAKER'S BREAD* DURING WEEK OF STUDY, BY TYPE OF HOUSEHOLD †

Type of Household	Number of House- holds Report- ing	Households Using		
		Home- made Bread Only	Home- made and Baker's Bread	Baker's Bread Only
Rural households				
Farm.....	425	19.1	18.3	62.6
Nonfarm.....	196	10.2	16.3	73.5
Urban households in				
Cities under 100,000 population	281	2.9	7.8	89.3
Cities of 100,000 population or more.....	402	1.0	5.5	93.5

* Excludes steamed, raisin, and other special kinds of loaf bread.

† Unpublished data, Bureau of Home Economics, United States Department of Agriculture.

The extent to which the homemakers in this study used the commercial laundries to reduce time and labor is shown in Table XX. These figures indicate that only 9.1 per cent of the farm homemakers in the study used the commercial laundry, whereas in the urban households from 40.4 to 51.8 per cent of the homemakers used this service.

TABLE XX

USE OF LAUNDERING AGENCIES OUTSIDE THE HOME DURING WEEK OF STUDY BY
TYPE OF HOUSEHOLD*

Type of Household	Households Reporting	Households Using			
		Commercial Laundry	Laundress Outside Home	Commercial Laundry and Laundress Outside Home	No Outside Agency
	Number	Per cent	Per cent	Per cent	Per cent
Rural households					
Farm.....	546	9.1	3.3	0.2	87.4
Nonfarm.....	245	14.7	4.5	0	80.8
Urban households in					
Cities under 100,000 population	282†	40.4	12.4	3.9	42.9
Cities of 100,000 population or more.....	409	51.8	4.6	4.2	39.4

* Unpublished data, Bureau of Home Economics, United States Department of Agriculture.

† Includes 1 household or 0.4 per cent not reporting types of outside agency used.

From these studies it appears that breadmaking is one task that has been quite generally turned over to the commercial bakeries. Laundering still remains a major activity in the rural homes, but in the urban homes it has been shifted to a considerable extent to outside agencies. That rural homemakers are not making greater use of the commercial laundry may be due to such factors as tradition, cost, and the distance to commercial laundries. In certain districts, however, laundry trucks now pick up laundry in the country, and the future may see an increasing use of the commercial laundry by rural homemakers.

A study of the use of outside agencies by 624 *earning* homemakers in southern Rhode Island shows to what extent homemakers employed outside the home use the commercial agencies. The data in Table XXI show that only 13.3 per cent of these homemakers made bread at home, while 66.8 per cent or two-

thirds used the commercial laundry. Of these employed homemakers, 11.4 per cent also bought their cake and 81 per cent bought some canned foods. About 18 per cent of the women reported that they bought no ready-made clothing; 60 per cent bought three-quarters or more of the garments which the family wore; 22 per cent stated that they bought everything readymade.

TABLE XXI

USE OF OUTSIDE AGENCIES BY 624 EARNING HOMEMAKERS IN
SOUTHERN RHODE ISLAND*

Product	Part-Time Workers				Full-Time Workers				All Workers			
	Commer-		Home		Commer-		Home		Commer-		Home	
	cial	Product	Product		cial	Product	Product		cial	Product	Product	
Clothing.....	Num- ber	Per cent	Num- ber	Per cent	Num- ber	Per cent	Num- ber	Per cent	Num- ber	Per cent	Num- ber	Per cent
Clothing.....	293	77.3	83	21.8	214	87.3	34	13.9	507	81.2	117	18.7
Bread.....	319	84.2	57	15.0	222	90.6	26	10.6	541	86.7	83	13.3
Cake.....	38	10.0	338	86.5	33	13.4	215	87.7	71	11.4	553	88.6
Canned foods..	289	76.3	87	22.9	216	88.0	32	13.0	505	80.9	119	19.0
Laundering ...	81	21.4	295	77.8	126	51.4	122	49.8	207	33.2	417	66.9

* Margaret Whittemore and Blanche Kuschke, "The Rural Homemaker in Southern Rhode Island as a Paid Worker," *R. I. Expt. Sta. Bul.* 259, 1936, p. 22.

A study of the amount of baking done by 390 Iowa farm homemakers gives some idea of the extent to which baking is done in the farm home. The data in Table XXII indicate that bread baking is carried on by at least one-half of the families. This is a considerably higher proportion of homemakers baking their own bread than was reported in the Bureau of Home Economics study. The largest amount of bread is baked by the Tenant-Purchase families, and in all families more baking is done in winter than in summer.

Dark bread is used less frequently and in smaller quantities than white bread, and for that reason a small proportion of the families bake what they use. More than one-half of all the families bake all or most of the rolls they use, but scarcely any of

TABLE XXII

AMOUNT OF BAKING DONE AT HOME BY 390 FARM HOMEMAKERS IN IOWA*

Number of Families	Baking	Percentage of Families Baking									
		June to September					December to March				
		All	Most	Part	None	No. Rept.	All	Most	Part	None	No. Rept.
Extension 203 families	Bread, white	9.0	26.9	36.2	23.4	4.5	11.9	27.4	36.8	18.4	5.5
	Bread, dark	8.5	13.4	28.4	34.3	15.4	9.5	14.9	31.3	28.9	15.4
	Rolls	24.4	22.4	31.3	11.4	10.5	28.4	22.9	29.4	8.4	10.9
	Cake	81.1	12.4	1.5	.5	4.5	78.1	11.9	2.5	.5	7.0
	Cookies *	43.8	34.8	17.9	1.0	2.5	43.3	36.3	14.4	.5	5.5
	Pies	93.0	3.5	0	.5	3.0	88.1	4.5	.5	.5	6.4
	Doughnuts	51.3	14.4	10.4	14.9	9.0	49.8	13.4	12.9	11.5	12.4
Interview 111 families	Bread, white	18.0	29.8	25.2	27.0	0	25.2	10.7	21.6	22.5	0
	Bread, dark	17.1	13.5	17.1	39.7	12.6	21.6	19.8	12.6	33.4	12.6
	Rolls	52.3	12.6	18.9	13.5	2.7	54.1	15.3	18.0	9.9	2.7
	Cake	91.9	4.5	1.8	.9	.9	91.9	3.6	1.8	.9	1.8
	Cookies	74.8	15.3	7.2	2.7	0	76.6	12.6	7.2	2.7	1.0
	Pies	97.3	1.8	0	0	1.0	96.4	1.8	0	0	1.8
	Doughnuts	79.3	6.3	4.5	3.6	6.3	78.4	5.4	5.4	3.6	7.2
Tenant Purchases 76 families	Bread, white	16.0	42.7	29.3	8.0	4.0	17.3	52.1	17.3	4.0	9.3
	Bread, dark	12.0	16.0	4.0	34.7	33.3	14.7	13.3	5.3	36.0	30.7
	Rolls	46.7	26.7	16.0	5.3	5.3	42.7	28.0	13.3	4.0	12.0
	Cake	84.0	10.7	0	0	5.3	74.7	14.7	0	1.3	9.3
	Cookies	44.0	40.0	8.0	2.7	5.3	42.7	41.3	4.0	4.0	8.0
	Pies	92.0	4.0	0	1.3	2.7	80.0	8.0	0	2.7	9.3
	Doughnuts	66.7	13.3	5.3	6.7	8.0	58.6	18.7	2.7	6.7	13.3

* Unpublished data, Economy of Household Production, Project 629, Iowa Agric. Expt. Sta.

the families buy commercially made cake or pies. A few buy cookies and doughnuts. Between 30 and 40 per cent of the families in this study live on or near a bread route. Of these who do, 60 to 70 per cent buy from the truck.

The rapid development of commercial agencies of all kinds indicates that a large number of homemakers are saving their time and energy by buying bread and other baked and prepared foods, canned and preserved fruit, frozen fruit and vegetables, ready-made clothing, and home furnishings. Many homemakers are having all or part of their laundry and dry cleaning done outside the home, and many are using commercial cold-storage plants for preserving foods of various kinds for home use.

In making decisions as to the use of the commercial agencies

in the community, each homemaker will want to consider both her needs and desires as well as those of her family. When pleasure in creating and preparing food products means a great deal to the family and where family enjoyment of flavor or quality is important, these activities may be retained in the home. On the other hand, when saving time and energy is of paramount importance, personal pleasure and satisfaction may be outweighed by other requirements. When home standards are superior to those of commercial agencies, homemakers are less likely to use these services or products. Where the standards of the commercial agencies are as high as or even higher than home standards, many homemakers find the use of these services highly desirable.

PART III
FAMILY FINANCE MANAGEMENT
CHAPTER XII

FAMILY INCOME AND CAPITAL

Family income is that stream of money, goods, and services that flows into the control of the family to be used by the family to satisfy its needs and desires and to discharge its obligations. As streams of water may be caught behind a dam and sent on through dynamos to generate power, so may this stream of income be controlled and directed to creative ends in a family's living.

The first type of income, *money income*, may accrue to the family in the form of wages, salary, or profits. This type of income is converted into goods and services, either upon receipt or at some time thereafter.

Income in the form of goods and services is spoken of as *real income*. This type of income is especially important in an agricultural society. It is represented by such tangible goods as food and fuel produced on the farm for family use, the shelter supplied by the farm house, and in many countries the wool or flax from which clothing is made for the family. Today in many countries and in some parts of our own country the real income of farm families constitutes a large part of the living of those families.

In an industrial society, exemplified by that of the United States, the family income consists largely of money received in return for goods sold or services rendered. The amount of real income in an urban family is usually small compared with that of the farm family and exists almost entirely in the form of services.

A third type of income, not included in money or real income

but derived largely from them, may be called *psychic income*. It is that flow of satisfactions that arises out of our everyday experiences, making for psychic and physical well-being. It is intangible and subjective, but the most important income of all in terms of quality of living.¹

Defined as above, income flows into the family's control as long as the family exists, but for purposes of analysis and planning, the complete cycle may be broken up into shorter or longer periods marked off in days, weeks, months, or years, or a period may be based on the various stages in the life of the family, such as the early school age of the children, the college period of the children, the retirement of the father from business.²

While the volume of tangible income, money, goods, and services, is for most families based mainly on the earning capacity of the members of the family, the volume of psychic income depends largely on the skill that is exercised in managing the tangible income, whether this income is on a level of relatively high income expenditures or is adjusted to low expenditures.

Decision as to the manner in which all three types of income shall be used in order to satisfy the family's needs, desires, and responsibilities, collectively and individually, becomes one of the major family problems. Income management is a problem around which lurk the possibilities of innumerable tensions and much worry and unhappiness.

WHAT IS INCOME MANAGEMENT?

Income management may be defined as planning, directing, guiding, and controlling the use of all three types of income described above. Its purpose is simply to get the greatest satisfactions from the resources at hand, with maximum development of the various individuals making up the family group, group well-being, and the opportunity to contribute to civic well-being.

¹ Benjamin R. Andrews, *Economics of the Household*, New York: The Macmillan Company, Chapters IV and V, 1936, revised edition.

² See Chapter III for family stages.

The *process* of income management is the same for the family as for an individual. But there is a difference in ultimate goals, the individual's goal usually being more or less personal, those of the family involving both the individuals of the group and the group as a whole.

To be thoroughly workable and satisfactory, the plan or pattern of expenditure for an individual or a group must be worked out by, or at least for, that particular person or that particular group. Anyone who expects to accomplish his goals by having someone else direct the plan or by following some ready-made pattern of income expenditure is bound to meet with disappointment, and the same is true of a family. Patterns of expenditure that "fit" a family do not exist. Plans have to be evolved by careful analysis of each phase of expenditure in order to arrive at a satisfactory plan for each family.

The force and speed of social and economic changes in present-day family economy leave little use for rigid patterns or models of expenditures. No two families, even though they have identical incomes, will have identical needs and desires. An "ideal budget for a family of four," "a model budget for a professional woman," and other such ready-made plans have been the cause of much misdirected effort; they have been looked upon as easy solutions to personal financial problems, whereas nothing can substitute for individual analysis and planning.

This does not mean that standards-of-living studies and levels-of-consumption studies have no place. Quite the contrary, for the information developed in such studies is invaluable in social planning and in providing basic information about consumption habits. But such studies do not in themselves provide a *method* by which individuals can learn to manage their own incomes. The fact that certain individuals can as a group spend their money in a certain average way does not mean that each individual in the group has such a spending pattern, nor is there any reason to assume that any particular degree of wisdom attaches to the pattern. For the individual family, working day by day and year by year on the solution of its own peculiar problems, the information in such studies can be only suggestive at best. More helpful are studies that have run through several

years, showing how families have made adjustments to changes in income or other difficult situations. But even these studies do not have to do with plans that have been evolved with due weighing of human values; they are merely a record of the results of spending in a certain way.

Much misuse or poor use of family funds is due to failure to realize or to willful ignoring of the fact that the amount one can accomplish is not measured by the amount of income alone, but by the income plus ingenuity and foresight and intelligence and the stamina to carry out well-made plans.

GUIDES IN INCOME MANAGEMENT

Seven steps in good income management may be outlined as guides. All the steps are based upon the ability to analyze and to carry through plans which grow out of analysis.

Frank and careful analysis of the individual's and the family's goals in life.

Analysis of the kinds of income available for individual or family use in accomplishing these goals.

Analysis of money income for a *short* period.

Analysis of money income for a *long* period.

Recognition of the stages the individual or family normally passes through in its life cycle.

Forecasting desirable accomplishments during various stages of the life cycle that will make definite and predictable demands upon the income stream.

Adjusting the use of the income through short periods so that it will fit into the plan for the long period.

ANALYSIS OF GOALS

The first step in good income management, the frank analysis of goals, is really the first step in building family life. The importance of objectives as a part of the management concept has been discussed in Chapter III. If the family ignores its guiding philosophy of life, income planning becomes an end in itself instead of a purposeful process based upon choice of values in living.

Perhaps the family is satisfied to have no particular goals, but

to drift and take what comes. Will that bring the greatest satisfactions? If so, the finance management of the family will tend to drift, for usually the approach to any part of life parallels quite closely the general approach. Or does the family prefer to meet life's problems "head up"? If so, it will look to the training of its members, it will prepare them to make adjustments as demands arise, and it will train for self-sufficiency and independent action. It will study the capacities of its members to assure development. Such a family will establish its own form of finance management, of planning and controlling its funds, for so high a quality of living cannot be attained without intelligent use of *all* resources.

The importance of analysis by the individual or group of its needs and desires in order to lay a foundation for use of resources cannot be overemphasized. In such an analysis, a study of all information available is helpful, that is, expenditure studies, guide budgets, or any data which help one clarify needs. Nevertheless, one should always recognize that knowledge of such data is *background* for solving problems. The first step in income management, the step which spells progress in improved use of income, requires an objective, unemotional, and mature analysis of facts present in solving daily finance problems. Daily problems should be solved in the light of long-time goals, for example, the life-insurance policy or an educational fund for the children, since parts of the costs to meet goals are always present to condition the use of the short-time streams.

ANALYSIS OF KINDS OF INCOME

The second step in good income management is the analysis of the kinds of income available. For the salaried group with regular employment, this step is not difficult. The income, usually in terms of money, of such individuals is predictable. For those who have irregular money incomes or those with a large part of the income in the form of real income, planning is not only more difficult but also more necessary.

The value received from the real income wherever goods form a part of family living must be carefully determined. The

farm family, for instance, can show its true value of living³ only if it takes into account the goods and services furnished by the farm for family use. The Farm Security Administration of the United States Department of Agriculture recognizes this fact in the plans it makes with its credit clients for repaying loans. Each farm plan is paralleled by a family plan, both made under careful supervision. The family plan itemizes the quantities of various kinds of food or household supplies, such as soap, which the family will need. Any article that can be produced at home with family service is so listed in the family plan and the money spared is assigned for other purposes. After the plans are made by the family with the help of a supervisor, the supervisor is in constant contact with the family to aid in carrying out the plans.

In her study of Farm Security families in Union County, Iowa, Stenswick found that the average estimate and production of food per family, for all types of the 64 families in her sample, was as follows: 252.8 quarts of canned vegetables planned for, 191.7 quarts produced and 134 quarts used; 155 dozen eggs planned for, 121 dozen produced and 121 dozen used; 112.4 pounds of butter planned for, 96 pounds produced and 96 pounds used; and 19.5 bushels of potatoes planned for, 25 bushels produced and 20 bushels used.⁴

For families with vigorous members, available land, and a will to provide, much additional income can be added to family living if needs are analyzed and plans made for fulfilling them through the production of real income. A large part of the difference in the way families get along with the same amount of money income may be due to the services added through the home manager's ability to use the available income wisely. The value of this ability should be recognized by the family as part of its value of living, for it is real income as truly as home-canned foods or homemade soap. Since it is difficult to place a money value upon services of family members their intrinsic value is usually overlooked.

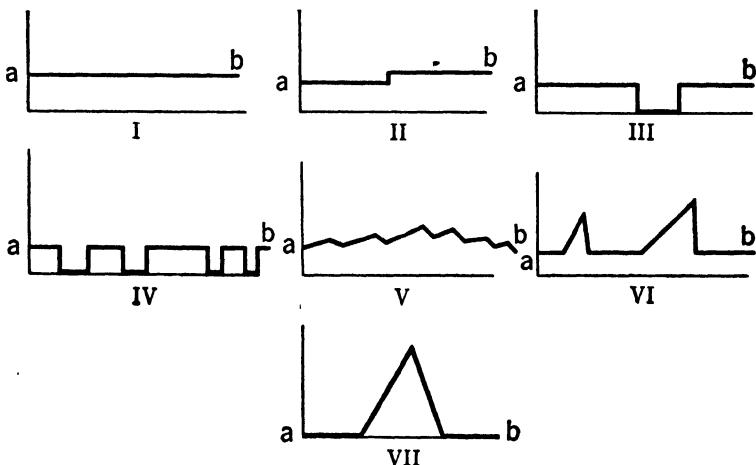
³ Value of living as used here means money value of goods and services plus cash available for family living.

⁴ Mildred Stenswick, "Farm Security Studies I. Certain Home Management Practices of 73 Families in Union County, Iowa." Unpublished thesis, Iowa State College, 1939, p. 43.

ANALYSIS OF INCOME FOR SHORT PERIODS

The analysis of income for short periods, the third step in income management, is closely related to the fourth step, the analysis for long periods. Money income is usually earned by weeks, months, years, and for a lifetime. Recognition that the summation of the short-time flow makes up the long-time stream is essential if maximum value is to be realized for family living. The process of fitting, or dovetailing, the short-time income stream, year by year, into the picture of the use of the long-time stream in order to make the long-time stream meet predictable needs is the real essence of the third and fourth steps.

PROFILES OF ANNUAL INCOME STREAMS*



* Not statistically derived.

Immediate wants are insistent. Individuals seem unable to withstand this insistence in order to have funds available for later wants, even though they are known. The ability to forecast future wants by an analysis of expected family performance is a part of the planned approach to financing family living. In order to show how an analysis of the short-period income can be useful in planning family expenditures, the above annual profiles of the income of seven typical social groups are presented for examination. The profiles represent money income or money plus money value of real income.

Annual Income I. The line in this profile represents a regular income from wages or salary that is constant throughout the year. Because it is perfectly predictable, this kind of income is the simplest to use as a basis for planned expenditures.

Annual Income II. An increase at one point in this profile carries throughout the rest of the year. The next year, unless another increase is forthcoming, the stream would return to the profile represented in I. A cut in salary would be represented by a drop in the profile line, which would require adjustments in expenditure plans. The flow of income would still remain predictable, however.

Annual Income III. The line in this profile represents a constant wage or salary for part of the year and none for the rest of the year. Teachers, as a group, have this type of income. Sometimes, however, even when employment is not continuous, the income is paid in twelve monthly installments, which means that the income flow is like that in I. Having the income spread evenly over the entire twelve months facilitates the planning of expenditures. A regular income being assured month by month, future planning can be concentrated on long-time demands and on how to integrate them into the year's plans.

Annual Income IV. The profile line here resembles III in that there are periods when there is no income, but differs from it in that the times of unemployment are not usually predictable. Seasonal workers, those who have chance employment, or those who might be laid off at unstated intervals have incomes like this.

Such irregularity of income may present no serious problem of management when the salary or wage during the periods of employment is large enough to carry the individual or the family comfortably through the periods of unemployment; but when the income is very small during the employed periods, as it is in a large proportion of the families in this group, grave problems arise. These families have the greatest need to use intelligently the income they have, yet they have the least opportunity to do so and, on the whole, the least inclination. It is vastly easier to use the money as it comes in and merely

hope that somehow the future will be provided for than it is to try to make plans in the face of so much uncertainty. Many families whose total yearly income would spell comfort, if properly managed, refuse to become interested in making intelligent plans, or any plans at all for that matter, that would take them smoothly through the ups and downs of an irregular income.

Annual Income V. This profile represents the income of the professional man or businessman who is not on a salary, or who is on a salary plus commissions, or on a salary that is augmented by earnings from investments. When a family has an income like this, a definite "salary" is often declared for family use, and the fluctuating amounts above the family salary are put into investments or used for equalizing the months of low income. The minimum monthly earning is relatively predictable and may be quite positively so, if high-month returns are used to equalize low-month earnings and if the family does not live up to its income from month to month and year to year. This group shows a rather high degree of resistance to planning the use of income because of established "living up" habits. The individuals in the group who start family life on a planned economy find the leveling process simpler than those who attempt to change their way of living after having become accustomed to using all the income as it flows in.

Annual Income VI. Profile VI represents an income with two major peaks, although there might be more than two. The income of the farm family derived mainly from sale of stock in spring and grain in fall are the best examples of such a stream. The profile shows a constant income base line throughout the year which includes the money value of real income obtained from the farm and used by the family plus added cash income from sale of produce from week to week. Although this profile represents the usual farm income, there are farm incomes that would fit one or another of the profiles in the series.

Annual Income VII. Profile VII represents the probable income pattern of such groups as artists, writers, inventors, promoters, or free-lancers who may have one or a few sales a year. In the profile there is one single point of productivity when a

sum large enough to carry the family for the whole year comes into the family treasury, although the profile might include one or more lesser peaks.

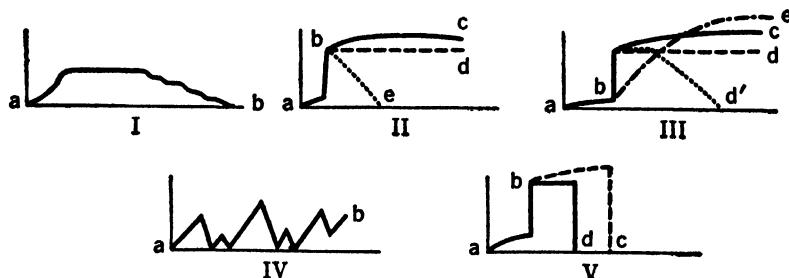
Analyzing the characteristics of this annual short-time income stream makes possible the visualizing of monthly adjustments to fit "peak-load" expenditure months. Few families are fortunate enough to have monthly expenditure demands parallel monthly income. Peak-load months are inevitable, yet they need not be the cause of family tensions or of insolvency. Planning to have funds available to meet the peak loads requires thought and an attitude of mind favorable to living within one's income. The financial difficulties of many families indicate that people will not face facts; on the other hand, there are many who do not know *what facts to face* in order to get along smoothly.

Facing the short-time profile of one's income stream, together with the first step, the analysis of family needs, is an excellent method of starting the pathway to success in the use of family income.

ANALYZING PROBABLE LONG-TIME INCOME

The *fourth* step in planning the use of income is analyzing the probable lifetime income stream. This, coupled with the fifth step, recognition of the stages of the life cycle of a family, gives meaning to the use of the annual income, for it gives purpose to spending. The analysis will have more meaning if typical profiles of lifetime streams are examined like the typical annual incomes.

PROFILES OF TYPICAL LIFETIME FAMILY INCOMES*



* Not statistically derived.

Lifetime Income I. The profile line in number I represents the average man's lifetime income stream, which rather faithfully follows his earning capacity. The income starts in childhood with a gradual increase through youth to a plateau in the prime of life (forty to sixty years), and finally tapers off in old age. A large part of the population will be found to have income streams which follow somewhat the pattern of this profile. The term "average" is used here in the true meaning of the word; for there are individuals with higher earning capacity and thus higher incomes and others with lower incomes, yet the general direction of the curve will not differ a great deal. Even though this profile includes a large part of the population there are a number of important variations that are typical of large socio-economic groups.

Lifetime Income II. The profile lines in II represent incomes of those who inherit position or capital or both and have an income from the accumulation. Line *abc* represents the income of those who have an inheritance and add to it through their own efforts. Line *abd* represents those who husband their inheritance but add little to it. Line *abe* represents the income of those who exploit their inherited resources; their profile may later be found in one of the other groups. The amount of the inheritance is not a factor in this analysis; large or small, the principle of direction of the income stream is the same.

Lifetime Income III. The profiles found in III represent the incomes of the groups that have a period of training before receiving a larger income. The period may be short or long, depending upon the demand of society for training of specialists in various occupations and professions. The training may vary from several weeks or months to several years, as exemplified by preparation for a skilled trade or for the medical profession. Between the two extremes are many occupations and professions. Included may be lawyers, teachers and professors, professional farmers and businessmen. Any one of these has a rather long period of training to which may be added a period of apprenticeship or internship. During the period of training, incomes are usually low in relation to later earnings and for

many persons may spring from borrowing on the future stream, earning while in training, or an outright subsidy.

Profile lines *abc*, *abd*, *abd'*, and *abe* represent typical incomes of members of the group. The direction of the stream depends upon circumstances at the end of the training period. Line *abc* represents the income of those who receive a definite salary immediately upon the end of the training period, who are progressive and have corresponding income increases. Line *abd* represents the income of those who receive a salary at the end of the training period but who go through life with no marked progressiveness or corresponding change in earnings. Line *abd'* represents the stream of those who are not successful and are early lost to the profession and enter another income profile. Line *abe* represents the stream of those who must build a practice, clientele, or business. Eventually the income of the last group may go higher than that of the salaried group. The income of all groups presented, with the exception of those in line *abd'*, tends to go higher and stay higher longer than the average man's income represented in profile I of this lifetime series.

Lifetime Income IV. This profile is the one which represents an irregular lifetime income. The group receiving this type of income will also receive an irregular annual stream. (See *Annual Income VII*, page 153.) As in the annual profile, the income pictured here is received by the free-lancing group, including artists, actors, writers, speculators, promoters, and others. Any one of these, however, may be found in any one of the other profiles. The distinguishing characteristic of the income profile in IV is that the individuals *depend* upon their creativeness or luck for their income. The direction of the life income of the people in this group is the most unpredictable of all thus far presented, since not only the incidences of the peaks but also the height to which they may rise are uncertain. Each peak depends upon the public's reception of a particular creation.

The suggested procedure for families living on such an uncertain income is the early establishment of a leveling process; the money received at any given peak may be allocated annually, then monthly, for an established family maintenance. It is easy to fall into a habit of using all the income as it is received.

The individual family must make its own decision as to how it will manage under circumstances of uncertainty. Security can come only through forecasting needs and adjusting an irregular stream to meet the needs.

Lifetime Income V. Profile V depicts the direction of the income of the groups engaged in hazardous industries and occupations. Airplane pilots, professional athletes, and men in certain jobs in mines and the steel industry or in occupations that have a high degree of danger will have income streams which follow such a profile. The income is characterized by high returns for a short period of time and a sudden cutting off of the flow rather early in life.

Profile *abd* represents the income of those who earn a large sum for a relatively short time and early cease to earn. Line *abc* shows the income which rises higher during productive years and stays high longer than that of the first group. The stream drops suddenly when the person is no longer productive. The people with incomes like either of these two profiles usually are found later in one of the other profiles, the particular one depending upon the capacities and training of the individual and the disposition of funds during the high earning years. For example, a famous restaurateur, once a professional athlete with an income following profile V, used accumulated funds from this high earning period for other productive purposes, and his later income is found in one of the other profiles.

Unquestionably other possible types of lifetime income streams could be delineated. This is not necessary, however, since the typical profiles chosen show how vast the variation in patterns can be from year to year and from occupational group to occupational group, as well as from year to year within an occupational group. It should be evident that no rule-of-thumb statement of income use can justly be made that will fit all families in any income group. Improvement in use of income can come only when each family studies its resources, conscientiously faces facts of the present and desires of the future, and plans to use available means to accomplish what is desired. Such a procedure is based on an active interest in making better use of resources. The most that can be done in giving aid in

income management is to point to a method of analysis; the thinking will need to be done by the individual or group.

The goals and probable direction of the short- and long-time streams having been reviewed, the next step in income management is to look at the family itself, and ask what is its relation to income?

INFLUENCE OF STAGES IN FAMILY LIFE CYCLE UPON INCOME USE

Recognition of the fact that a family passes through definite stages in its life cycle is the fifth step in income management. An analysis of income use cannot be complete unless the long-time family picture is paralleled with the probable long-time picture of income.

When viewed from beginning to end, the life cycle of a family with children passes through seven stages, each making a specialized type of demand upon the income stream (pages 24-27).

The following chart shows the impact of the family's demand upon the income stream at the various stages of its life cycle. The fifth step in income management is the reviewing of the possible future demands and the planning, so far as possible, to have funds available to meet the predictable demands.

STAGES OF FAMILY LIFE AND DEMANDS ON INCOME

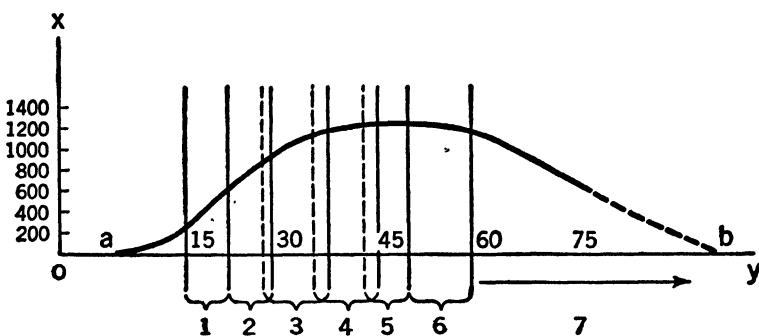
<i>Stages of Family Life Cycle</i>	<i>Demands upon Family Income</i>
1. Adjustment	Very light
2. Accumulation	Heavy
3. Grade school	Light
4. High school	Moderately heavy
5. College	Heaviest
6. Recovery or rediscovery	Either light or heavy
7. Retirement	Lightest

FORECAST OF FAMILY ACCOMPLISHMENTS

The recognition of the influence of the stages in the life cycle of a family upon income use, just described as the fifth step in income management, is a necessary preliminary to the sixth, the forecasting of desirable accomplishments during these stages. In order to show how forecasting desirable accomplishments for

each stage aids the family in analyzing its problems of income use, the seven family stages have been superimposed upon two of the lifetime income profiles. The force of the demand within the various stages may in this way be more easily identified. If a family can forecast its probable lifetime income and locate on the curve a particular stage through which it is passing at a given time, the long-time view of needs and resources to meet needs can be visualized.

Figure 9 shows the seven family stages superimposed upon lifetime income I, the average man's stream; Figure 10 shows



x_0 = income

ab = average man's income

oy = age of earner

1, 2, 3, 4, 5, 6, 7 = stages

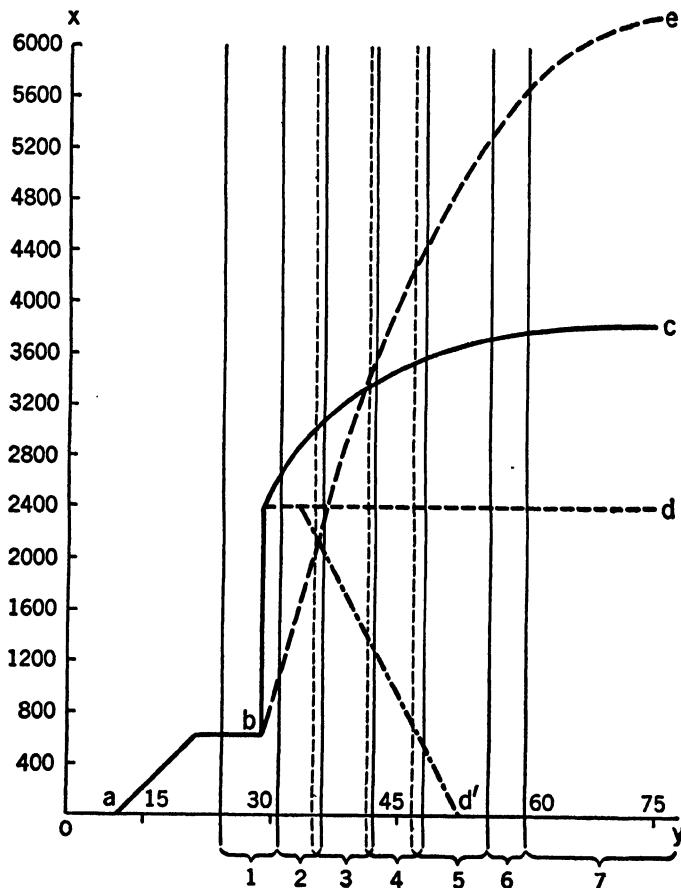
in family cycle

FIGURE 9. Average man's life-time income profile and the seven stages of the family cycle.

the same seven stages superimposed upon the lifetime income III, the professional man's stream. In both, the force of greatest demand is during stage 5, college, or stage 4, high school, if the children do not go to college. In both groups the second force of demand is in stage 2, accumulation, while the professional group has another period of heavy demand during the time of training. Stage 3, grade school, is a period of light demand; the lightest in both groups is stage 7, retirement.

Observe the differences in the two groups in the incidence of demand in relation to the difference in the age of the earners during the various stages. The period of adjustment for the professional group will be slightly longer than for the average,

owing to many prolonged engagements and delayed marriages in this group. The period of accumulation is shorter because of fewer children in the professional group. With smaller families



x_0 = income

a lines = variations of income

oy = age of earner

1, 2, 3, 4, 5, 6, 7 = stages in
family cycle

FIGURE 10. Professional man's life-time income profile and the seven stages of the family cycle.

the succeeding stages are shortened and do not overlap as much as in the average group. Stage 5, college, will in all probability be longer for the professional man, since the likelihood of the

children in this group receiving advanced training from family subsidy is greater than for the average family. In the average family, advanced training for children is frequently financed in part from some source outside of family funds—scholarships or other grants and subsidies. The recovery stage will be longer for the average man than for the professional man because of the likelihood that the average man will need to liquidate indebtedness incurred during the period of sending children to college. Moreover, the recovery stage is shortened for the professional man by the fact that his income stream tends still to be high during this period. Both groups have about the same period of retirement, the difference being that the professional man's income tends to stay higher longer than the average man's, owing to the character of his employment plus the possibility of greater accumulation of funds as a source of supplementing the earned income.

Can it be possible that the way the individuals in the first group use income will be identical with the way it is used by those in the second? Or even will two families in either group be identical? Obviously, no! The principle involved in planning the use of income will be the same, however, and that is, the progression through the various steps of analysis set forth as a *method* of managing family income.

ADJUSTING INCOME USE

The *seventh* step in income management is the adjustment of the use of short-time income to make the long-time stream effective; in other words, it is to make accomplishment follow through as planned. Here action is involved. Step VII is the most difficult of all, for it demands a belief that control of material resources for human satisfaction *can* take place and is worth while.

It is evident that many family financial ills arise from lack of strong motivation to use income wisely. No matter how large or how small the income, a better job of using it is possible if facts are faced and if the family members cooperate in solving the problems of income management.

WHAT IS FAMILY CAPITAL?

In order that the family may progress in income use with relative ease and smoothness throughout its life cycle, despite the fact that life is lived in short units of time, day by day, and week by week, two things are necessary. First, an analytical approach must be adopted in using income, as outlined above; second, a capital fund which will serve as a service fund throughout the family's lifetime must be early built up. Such a fund might be called a living estate in contrast to a retirement estate. In other words, it is a fund which serves the family when known peak loads appear, as for example, the demands of certain family stages such as college or accumulation.

Family capital can be defined as the *fund* that the family has amassed at any moment of time. This fund may be contrasted with the *flow* of income which the family receives through a definite period of time. The capital fund may be made up of a variety of types of property, that is, real estate, investment securities (stocks or bonds), cash value of insurance, household capital goods (equipment, furnishings, and furniture); or the fund may include the investment in a business. The management problems arising from the decisions as to the forms the fund shall take are discussed in Chapters XV and XVI.

HOW CAN A FAMILY AMASS A CAPITAL FUND?

The capital fund may arise in three major ways: first, as a planned and regular clipping off of a portion of the current money income which is placed in some relatively permanent form; second, as gifts and inheritances received by the family; third, as accrued earnings of the property itself, either through compound interest or an unearned increment. This last form is the accrued value of property due to no effort or improvement on the part of the owner.

Of the three ways of accumulation, the first, the clipping process, is the method the majority of families will need to depend upon for building their fund. Even though some families are fortunate enough to receive inheritances, small or large, generations overlap and the gift may not come to the family at

a time to give needed security through the stages when there is a family need. Usually the highly desirable clipping process should start soon after marriage, if a fund is to be available for the early and middle stages of the family cycle.

RELATIONSHIPS BETWEEN FAMILY INCOME AND CAPITAL

Since the capital fund of most families is built up by the slow process of saving a part of current money income, our thinking will be clarified if we investigate carefully more exact relationships between money income and capital. Five diagrams are presented to show ways of building a capital fund.

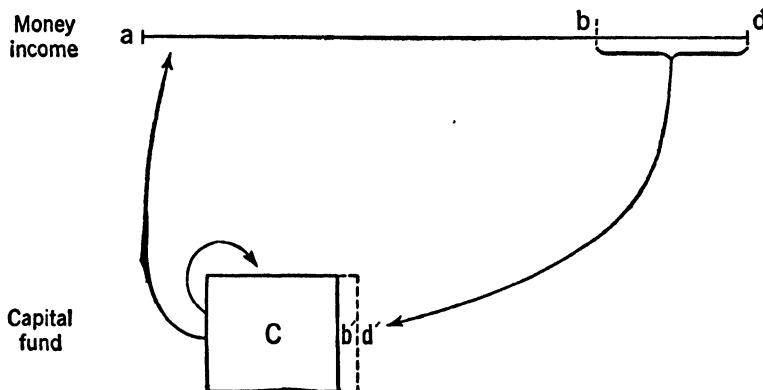


DIAGRAM 1. Money income and the capital fund.

The line *ad* in Diagram 1 represents the current income of a family for a year, *C* represents an established capital fund; *ab* represents the amount of income used for the living of the family for the year; *bd* equals the amount directed to some form of savings, as shown by the arrow going to *C*. The fund *C* increases by the amount of *b'd'* in the dotted addition. In turn the fund *C* earns, and the earnings are either returned as a money flow back to increase the income, as indicated by the arrow leading from *C* back to *ad*, or are allowed to accrue and compound, and automatically increase the fund, as indicated by the arrow of return to *C*.

Such an analysis shows how periodic diversion of small amounts of money income may gradually build up funds to be

used for specific purposes as needs arise. Savings do not just arise; they come through income management which envisages future demands and makes plans to meet them. At the same time the security of the group increases because of a growing fund which can be used as collateral in an emergency.

In Diagram 2, a relationship between real income and the capital fund is shown. Line *ad* represents the family money in-

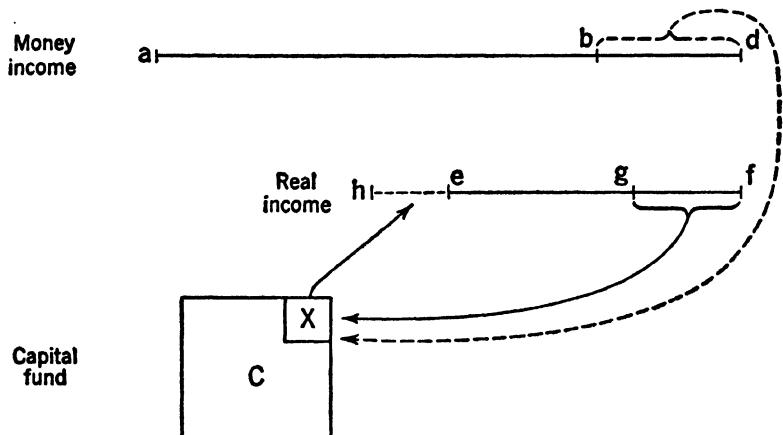


DIAGRAM 2. Real income and the capital fund.

come for a year. Line *ef* represents the real income in terms of goods and services; *gf* equals the real income in terms of services alone. As before, *C* represents the family capital with the addition of *X*, which represents the portion of capital fund in the form of household capital goods. As shown in the diagram one of two things may happen: either the portion of the money income as represented by line *bd* may be applied in payment of a household capital good (see dotted line leading to *X* of *C*), or the good may be paid for by services alone, as indicated by the solid line from *gf* to *X* of *C*. In turn the good returns a service that increases real income, as indicated by the arrow of return to the real-income line, increasing the line *ef* by *eh*. Either of the processes will increase the total value of living of the family.

In yet another relationship between real income and the capital fund, real income is used to spare money income, so that

money income can be diverted into other channels. Such a process is illustrated in Diagram 3.

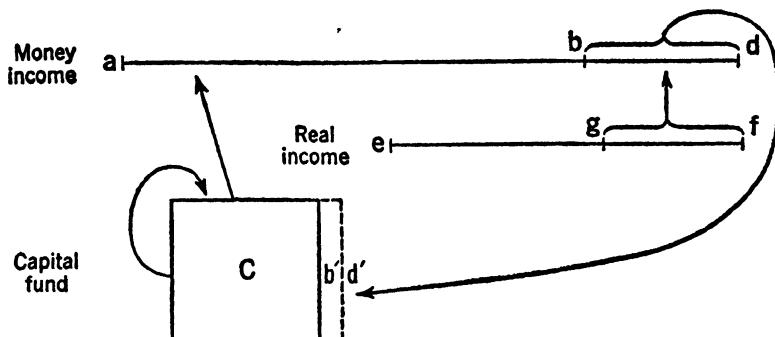


DIAGRAM 3. Real income sparing money income for the capital fund.

In the diagram the line *ad* represents the family money income for the year; the line *ef*, the real income; *gf*, the part of real income which is to be diverted toward sparing some part of the money income. In the process the amount of money *bd* is put into the capital fund *C*, which becomes larger by the dotted portion *b'd'*. Either the total fund *C* earns a return which flows back to *ad*, or the earnings are allowed to accrue and increase *C*.

Such manipulation of resources is practiced by the farm family that produces a portion, large or small, of its food supply, thereby releasing part of the food money for other uses. In the diagram the money spared has been diverted into savings, as indicated by the arrows from *gf* of real income to *bd* of money income and to *C*, the capital fund. In the urban home the family may dispense with paid help by doing its own work and thus divert that sum to another purpose. In either farm or urban home, if, for instance, the family services are used in making clothing or household furnishings, the result will be the same.

In the diagram above, household capital goods (*X*) would enter only if the spared sum is invested in a household capital good, in which case the relationship would be that shown in Diagram 4.

In Diagram 4, the part of real income *gf* spares money income *bd* which is invested in a household good *X*. *X* in turn extends the real income line by *eh*, thus increasing the total value of living of the family.

The relationships between income and capital funds shown in the two foregoing examples suggest possible methods of in-

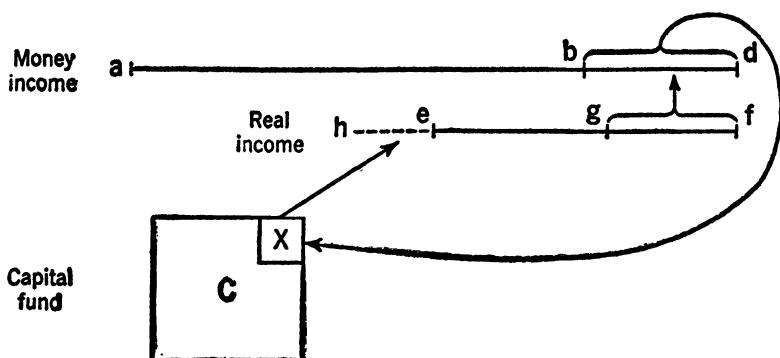


DIAGRAM 4. Real income sparing money income for a household capital good.

creasing the total living of any family that finds itself with a lower money income than is adequate to meet the needs and desires of the group. The process of sparing money income by using real income has additional value to the family, if the sparing is carried forward as a creative family project; the intangible benefits from cooperative enterprise, common purposes, and group activity are immeasurable from the point of view of the development of fine family relationships.

Yet another possible relationship between income and the capital fund should be examined. In it a part of the current income is invested in a capital good which is a productive good and, as such, not only may return services to increase real income but also is capable of producing goods for sale, thereby returning a cash money income. Through time, such a productive good shows a *net* gain over the original cost of the article. The process is pictured in Diagram 5.

In the diagram, the real income is shown as sparing the money income for the purchase of the capital good. However, a part of the money income could be diverted without the sparing process. In either case the money *bd* is invested in a household capital good *X* which in turn earns a cash income to add to *ad* as indicated by the arrow of return from *X* to *ad*. The possibilities of this procedure for a family include the purchase of a mixing

machine, which earns a cash income through the sale of products such as cakes or mayonnaise; a sewing machine for use in the sale of personal and machine services in dressmaking, or again a typewriter with the sale of its productivity.

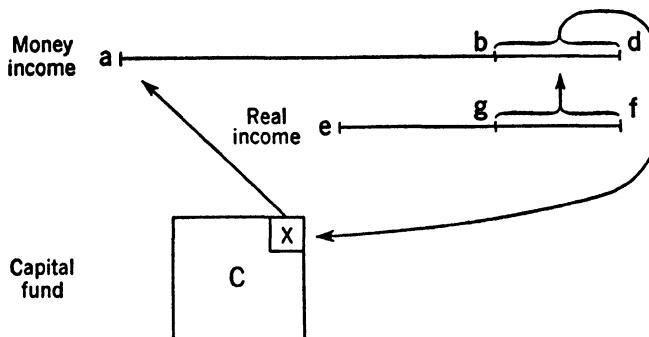


DIAGRAM 5. Money income and capital good.

Income management is a major family problem, and its solution requires careful analysis. The present chapter introduces the reader to a method of analyzing the more remote and complex factors influencing the way income is used, the importance of which is not always recognized. In the next chapter certain techniques for aiding the family in using its income are discussed. These techniques, not management strictly speaking, are tools or devices which aid in planning and using family funds.

CHAPTER XIII

TECHNIQUES FOR AIDING IN THE MANAGEMENT OF FAMILY FINANCES

Individual differences in the personnel of families mean differences in attitudes about the way income should be handled. Family attitudes have been shown to be basically built from social heritage plus training and experience of the two individuals entering a marriage (Chapter I). Attitudes about the use of income are a part of the larger pattern of behavior. In fact, defense of one's own method of handling funds at times may be vehement.

METHODS OF HANDLING FAMILY FUNDS

Five major methods of handling family funds found in current use are: the dole; the allowance or apportionment method; the fifty-fifty method; the equal salary method; and the finance plan or budget.

Are there any bases for choosing among the methods or for evaluating a method which is in use? The answer is yes; criteria can be set up for judging the contribution that the *method* of handling income makes to family development. Five such criteria are examined in the following pages.

CRITERIA FOR JUDGING METHOD

DOES THE METHOD REVEAL COST OF LIVING?

First: Does the method of handling the income reveal the cost of living to the group?

Knowledge of the cost of living is basic for solvency and economic security. The cost of living means the total expenditure or amount spent by the family in maintaining its daily life. The term has also a second, more refined meaning, dependent upon the first, namely, the knowledge of the cost of all items of ex-

penditure that the family feels to be essential to maintain its accustomed standard, or the standard expected of it.

A knowledge of cost of living in the first sense can be ascertained with no great difficulty from records of expenditure, if records are kept, plus certain adjustments which are necessary each year as new demands are made upon income, or as changes in expenditure due to the entrance of new commodities alter the family spending pattern. An example of new demands upon income are the added wants of a daughter entering high school and the costs incident to her new life. Will these costs be superimposed upon old costs, or will adjustments and substitutions be made? As an example of the entrance of new commodities which alter the type of expenditure consider the substitution of frozen vegetables or fruits for canned or fresh ones. Does the frozen food add to the cost of feeding the family? Is it used because it saves time for the homemaker or simply because of ease of preparation or preferred taste? Does the time released by its use allow for other services to the family which in turn offset any added cost? These are questions the family will need to answer if it wishes to have a knowledge of cost of living in terms of actual expenditures.

A knowledge of cost of living in the second sense of maintaining standards is more difficult to ascertain but equally important. This cost of living is based upon social status and social expectation rather than upon the intrinsic needs of the group. For example, a college professor becomes an administrative officer with an increase in salary, and soon he appears driving a car from a higher price group than the one to which the family has been accustomed. His intrinsic need is no different, but he feels that his new status demands a different standard of living.

Kyrk has presented two methods of arriving at the cost of living of groups in society: first, through studies of the costs of the items of expenditure making up the living of certain groups, such as the wage earner or the professional man; and second, through budgets which give the various goods and services used by the group to which prices can be given at any time.¹

¹ Kyrk, *Economic Problems of the Family*, pp. 297-303.

If the method of handling family funds gives full knowledge of actual costs, or if potential costs can be easily computed, then the family has necessary basic information about costs of living. This information can be utilized in evaluating the method of handling funds.

IS THE METHOD PSYCHOLOGICALLY SOUND?

Second: Is the method of handling funds psychologically sound in that it allows for justice to all members of the group, young and old?

Frustration and emotional insecurity may stem from a feeling that personal wants are inadequately understood and cared for or from a feeling of individuals that there is a lack of knowledge of financial affairs of the intimate family group.

Literally, psychological soundness means (1) that the earner for the family—usually husband and father but often some other member or members—feels that his efforts are well enough understood and appreciated by the group that demands beyond his capacity to provide are not made or at least are tempered. It means (2) that the homemaker as home manager has, with the earner, full knowledge of amounts and manner of spending and because of this feels that just recognition is given to her capacities; at the same time she feels that her contribution to the group is appreciated. It further means (3) that each child in the group participates in the use of income in relation to his or her ability to understand. This participation is through sharing in use of income for personal needs with a gradual increase as development in the individual takes place and comprehension of economic values grows. Participation further includes a sharing by each child in making plans for family use of income in accordance with his ability to understand and to make judgments.

If the method a family follows in handling its income is psychologically sound, each member of the group will feel that he is helping in making decisions and that he is participating through sharing funds for personal needs.

ARE SAVINGS CONSIDERED?

Third: Does the manner in which the family handles its income allow for a full knowledge of savings?

If we believe in the philosophy of a living estate for the family, page 164, then the necessity for knowing what is being accumulated and for what purpose the accumulation is intended is axiomatic. The knowledge of savings means both that there is an awareness of the amount of current income which is being clipped, and that the need for which each part is directed is well understood. Further, the picture will show where the amount saved is placed. The wisdom of full knowledge of savings is evident since such information allows the family to understand why savings are made and where placed and also when payments are made and by whom they are to be made. One of the results of the knowledge of savings is economic security. Thus full knowledge of savings may be set up as a criterion of *method* of handling the income.

ARE CHILDREN AWARE OF INCOME RESPONSIBILITIES?

Fourth: Does the manner of handling the income include the children?

The importance of this criterion cannot be overstated.² The optimum development of each member of the family group has been given as one of the goals in homemaking and thus in home management. In our present-day society, an individual who has little or no experience in the use of money cannot develop in the optimal fashion. Those who work with youth either at the upper high-school or college level observe an appalling unawareness, and thus ignorance, in youth of its responsibility for making value judgments in connection with money exchanged for goods and services. Judgments in choice-making, whether weighing values between two competing desires or between two possible goods with different qualities and prices, can come only as a growth process in the development of the individual. To send

² S. M. Gruenburg and B. C. Gruenburg, *Parents, Children, and Money*, New York: Viking Press, Inc., 1933.

the child or youth forth suddenly into a situation in which he must make choices in the use of resources without preparation for choice-making is as unkind as it is unintelligent.

The child's participation in income use is one point at which home management becomes an important part of consumer education. Homes have a responsibility to train the younger members of the family so that they may take their places with ease and intelligence in an economy in which they not only must produce, and thus earn a living, but also must consume, and thus use that earned income.

Children are early aware of the exchange economy in which they live. Watch a group of children play store and storekeeping and see how conscious they are of the exchange idea. Some parents will willingly supply their children with toy stores and shops with an elaborate system of toy money, and then fail to see the necessity and value of supplying them with real money when the child reaches the age at which he wants to make his own choices. The school can do a certain amount for children in giving the exchange and choice-making experience, but no experience, with its attendant development, is the same to the child as that which he has in a sympathetic and understanding home environment. In order that the young may have basic training in an important function which as adults they are forced to assume completely, the method the family uses in handling its income should allow the children to be included.

IS THE METHOD EASY TO OPERATE?

Fifth: Is the method of handling funds one that is easy to operate and simple enough to be convenient?

Since ease and simplicity are qualities of the mind, the fifth criterion may be conceived as one of degree. The family members may differ in their views on the convenience of a given method. That is, it may be convenient for one member of the group but exceedingly inconvenient for another. Thus, since effective income management is a family group project, the criterion of convenience and ease in administration *for all* can well be used as a check on methods.

DESCRIPTION OF METHODS OF HANDLING INCOME

Five major methods of handling income are in current use by families. These five—the dole or hand-out method, the allowance or apportionment method, the fifty-fifty system, the equal salary method, and the family finance or individual budget plan—are described on the following pages.

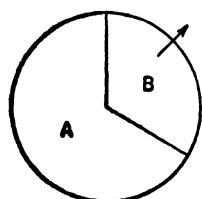
THE DOLE METHOD

The dole or hand-out system is explained by its name. One person, usually the husband, though sometimes the wife, maintains complete control of the income and doles or hands out small or large sums of money as needs arise or as wants are insistent enough to interest him in making the dole. The system is a carry-over from the patriarchal form of family life under which the father as head of the family was controller of his domain and dealt out benefits both in money and in justice and judgments in all other compartments of human relations.

The dole method is likely to be used in a family that has little knowledge of its exact income and

one that still operates under the type of relationship of the patriarchal era of family life. It represents the crudest form of family finance in the light of our knowledge of psychology, human development, and human relationships.

DIAGRAM 2. Allowance method.
 $A + B =$ income stream.
 $A =$ income kept under control
of one person.
 $B =$ income allocated to
part or all of living
costs.



THE ALLOWANCE METHOD

In the allowance or apportionment method a certain portion of the money, large or small, is allocated for all or a part of family living. As the system usually operates, the husband gives to the wife a stipu-

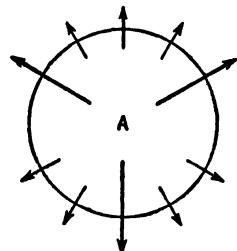


DIAGRAM 1. Dole system. Circle A is the income stream. The arrows represent doles of large and small amounts.

lated amount which is to cover specified cost items in family living. The remainder of the income is used to cover other living costs, such as payments on a house, investments, insurance, taxes, or any other use the husband wishes to make of the remaining portion.

This system is likely to be used by the business or professional group with irregular incomes. The apportionment system is sometimes used as a means of declaring a family living salary from an irregular stream. When such a leveling process is carried forth in connection with rather careful planning, it becomes

a form of the last method here described, *the family finance plan* (page 177).

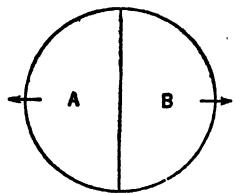


DIAGRAM 3. Fifty-fifty system. *A* and *B* represent equal parts of the income. *A* is allocated to one of two persons; *B* to the other. Each person assumes an equal share of expenditures.

THE FIFTY-FIFTY SYSTEM

The fifty-fifty system is a method in which the total income is divided into two equal parts, and the expenditures of the family are also divided into two equal parts. The system operates by the husband's assuming half of the expenditures, paying them from his half of the income, and the wife's assuming the responsibility for the other half of the expenditures, paying them from her half of the income. The system assumes a known and regular income and

known expenditures; otherwise their equal division could not be made.

This system is likely to be used in a family in which the wife has had an independent income before marriage and wishes to maintain a degree of independence, or by a family with no children.

THE EQUAL-SALARY METHOD

The equal-salary method is one in which all expenses of the family are paid from the total income and the part of the income which is left is then divided equally between husband and wife as a salary for the contribution of each to the enterprise. The system assumes not only that the income is large enough to have

a surplus but also that each division of the surplus represents an appreciable sum. The plan makes no provisions for the manner in which the portion allocated to family living is to be used. Thus that part of the income can be operated as the dole or as a highly refined planned system, in which case the efficacy of the system would need to be judged by its associated method rather than by the method itself.

This system is likely to be used in a family where the wife has earned before marriage or has had an independent income and feels the need of the independence such a salary would allow her.

THE FAMILY FINANCE PLAN

The family or individual finance plan, the budget, is the method of using income as a shared family project. Direction of such a system naturally lies in the hands of the father and mother (or husband and wife). During the early stages of the family cycle the husband and wife share jointly in planning the distribution of the income into the expenditure pattern which represents their desired living. Then, as the children become old enough to understand financial matters and have wants and desires of their own, they share in the planning along with the adults.

DIAGRAM 5. The family finance plan. The circle represents the total income of the family (or the individual). The sections 1 to 6 represent the groups of expenditures planned for, such as food, clothing, shelter, education, and recreation.

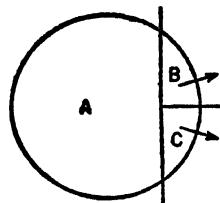
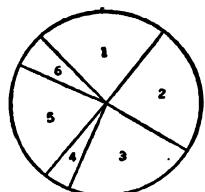


DIAGRAM 4. Equal-salary method. The entire circle, $A + B + C$, represents the income. A is the portion of income going to family living; the equal parts B and C are the surplus divided into two salaries for wife and husband.



This system is a part of the way of life of the family using it, and is based upon an understanding by both husband and wife of human development and relationships. The discussion in the chapter on income management shows this method in operation. Briefly summarized, the method is one of analysis of needs and resources to meet needs, and of actual performance and adjustment according to the analysis.

The actual technique of making a finance plan is simple. It must be based upon facts. The seven steps of income management help the family in finding the facts essential in the long-time view of the family's life. The detailed facts needed for short-time planning can be secured from the records of current expenditures or accounts and are the basis for adjustments from time to time. Thus some simple method of recording expenditures gives basic information for making current plans.

If the finance plan is being made for the first time, it is desirable to keep records for a short period, and then use the information from these to forecast for another short period. In this way information and experience are gradually built up. The length of time chosen during which to gather information can suit the individual, such as from month to month or for several months. The plan can then be made for the full cycle of the next year on the basis of facts collected. Always the short-time use of the income must be adjusted to include the long-time picture of demand, if needs of different stages in the family are to be met.

After a working knowledge of finance management has been developed through actual experience in finding the facts of expenditure and in planning, if one desires a check on individual performance, the family may profitably investigate the way other families in a like economic group spend their money. The family has now reached the stage in finance planning in which an investigation of family-expenditure studies can be helpful and interesting in answering the question, do we spend too much for certain items or groups of items? The findings of a number of the more recent studies are recorded in Chapter XVII for such reference. It is the responsibility of each family making its plan to find its own group of expenditures and to make its plan according to its own pattern of living.

No method of handling funds is a panacea for all family financial maladjustments or difficulties. At best it is a technique or vehicle for using one of the important resources, money, to gain a satisfying life for the family group.

AN EVALUATION OF METHODS OF HANDLING INCOME

The following chart is an attempt to evaluate graphically the various methods of handling income, as they have been de-

scribed, using the criteria set up for checking methods. The minus mark (—) indicates that the method does not meet the criterion; the plus mark (+) indicates that the method does meet the criterion.

Criterion	Method					
	Dole	Appor-tion-ment	Fifty-Fifty	Equal-Salary	Family Finance Plan	Yours
1. Cost of living	—	— or +	+	+ or —	+	
2. Psychological soundness	—	— or +	+	+ or —	+	
3. Picture of savings	—	— or +	+ or —	+ or —	+	
4. Includes children	—	— or +	—	+ or —	+	
5. Convenience	—	— or +	—	+ or —	+	

A glance at the chart reveals these facts about the systems:

The dole system does not fulfill any of the criteria. It is the poorest system to follow.

The family finance plan or budget fulfills all the criteria and thus is the best system to follow.

The allowance and equal-salary systems either fulfill all the criteria or none, which may seem a paradox. The fact is, they show all plus signs when associated with the family finance plan; they both show all minus signs when connected with the dole. Any system which has such a differential in range of possible efficacy is a questionable one to use. However, family case records show both methods in effective use for the individual families in which the methods are connected with the budget system.

An examination of the fifty-fifty method shows it to be a mixture of plus and minus signs. The effectiveness of the system will depend upon the weight given to the various criteria. Since it is used largely by childless families, the fact that criterion 4 is minus is not a serious matter. The inconvenience lies in the difficulty encountered in dividing expenditures equally. With the possibility of a changing price level even within a given year, equality may be so disturbed as to throw the calculations of expenditure far off a fifty-fifty base.

Space has been left for any family that desires to evaluate the method it is using.

WHAT RECORDS AID IN FAMILY FINANCE?

What financial records shall the family keep in order to have information essential for income management? Or shall they keep any records at all? These questions must be answered by each family. The keeping of records has a certain repetitiveness and inconsistency about it which tend to irritate some people, probably because the process has not been reduced to the realm of the automatic, or because records are seen as ends in themselves rather than as devices for aiding in the attainment of family desires. Again the results of keeping records may not be so tangible as most other repetitive activities in a family. Motivation for the keeping of records, for example, is not so insistent as hunger is for motivating food planning and preparation, or as a desire for orderly surroundings is for cleaning, or as social prestige and pleasure are for furthering the social life of the group.

What then is the basis of choice of the kinds of finance records a family will keep? The answer is, the desire for knowledge and facts. Intelligent and progressive adjustment, or readjustment, can be made only in the light of facts which condition and alter decisions. The more relevant the facts available for decision-making, the more rapid and accurate the judgment and the smoother the process of solving the problem. Thus one family whose guiding members are careful and meticulous by nature is likely to desire detailed records of a number of kinds above the minimum basic information; another whose leaders tend to be irritated by detail will shun the itemization of record-keeping and seek only ways of finding the minimum information upon which to base judgments.

What records, then, are essential to give adequate facts for finance management and yet not take too much time in the keeping? The question becomes a part of an earlier analysis of income management. The family must keep those records that supply basic information in the long-time and short-time

view of income use. Long-time records that will give complete and adequate information are those of permanent property, investments, and indebtedness. A record showing these assets and liabilities is called the *ledger*. Derived from the ledger is another important long-time record, the *balance sheet* or *net worth sheet*, in which liabilities are balanced against assets at stated intervals. The balance sheet is computed at least once a year.

The essential short-time records are those showing the expenditure of realized income in terms of money, or cash expenditure, and in terms of real income, where goods form an appreciable part of realized income. These records are called *household accounts*. All three types of records, the ledger, the balance sheet, and household accounts, will be discussed briefly.

THE LEDGER AS A PERMANENT RECORD

The family ledger is a permanent record of all properties and debts of the family. The recording includes full data of identification of assets, the property owned, and also full data on all indebtedness. A book of some size and permanency of materials is desirable for the ledger. This permanent record is, of course, separate from the current household expenditure accounts. For the family with a large amount of property or with considerable variety in types of property and debt transactions the book will need to be large enough for some organization. For a family with more modest means, thus fewer transactions, a page for each type of transaction will be sufficient.

Let us consider a family living on an income of \$200 per month, \$2,400 per year, in conservative circumstances, with both assets and debts as follows:

ASSETS

1. A house in which the family lives, purchase price \$5,000;
2. Two life-insurance policies:
 - 1 ordinary life policy for \$3,000.
 - 1 twenty-year endowment for \$2,000 for college education of two children.
3. A real-estate first mortgage receivable for \$500.
4. One note receivable for \$75, a loan to a sister.

LIABILITIES

1. An amortized³ building and loan mortgage for \$3,000 on the house.
2. A loan of \$250 on the ordinary life policy for an emergency operation.
3. The purchase of a mechanical refrigerator on time for \$187.75.

What information would the ledger of this family contain?

On the minimum, five sheets would be needed, three for the assets, using one for each type of asset, and two sheets for the debts, one called a capital account sheet giving the detail table of amortization of the loan on the house.

The *capital account sheet* for the house would contain the necessary data of ownership, that is, the value of the house at date of purchase, with whom the loan is held, the date the loan is due, and the amount of the contracted amortized payments. Together with these are recorded any additions to the property which increase its value, such as a porch or fifteen feet of additional land for the lot. At any time, then, the family can cast up the value of the property, which will be the original cost of the property plus any additional input minus a fair depreciation. The complete data recorded make full information available in case of forced sale or necessary settlement of the estate due to death or any other exigency.

The *life-insurance account* would record the data of each policy, that is, the number of the policy and the company in which it is held, maturity date and value, time and amount of premium payment, and a table of cash or loan value year by year which gives the exact surrender value at any time.

The *mortgage-receivable account* would record all pertinent data incident to the \$500 mortgage, that is, name of mortgagee, total amount of the loan, maturity date, contract interest and date of its payment, plus any payments on the principal.⁴

The *notes-receivable account* records the name of the borrower, the amount of the note, and contract interest, date of interest payment, and any payments on the principal.

The *liability or debt account* for the family under discussion is relatively small. Since there is an amortized building and loan mortgage, it will be well to have one sheet for the recording

³ For explanation of amortized mortage, see page 298.

⁴ Interest payments are not recorded here since they are part of current income.

of the complete table of computed increasing principal and decreasing interest allocations per payment.⁵ Having a complete recorded table makes it possible at any time to know the exact amount of the unpaid principal.

One sheet will be sufficient for the other types of loans. Since there is no maturity date on the *life-insurance loan* of \$250, the recordings will be the interest rate, the date of interest payment, and the recording of any repayments on principal. The life-insurance company allows the policyholder to liquidate a policy loan in payments as small as \$5 at a time.

The time payment on the refrigerator is a form of *accounts payable* which represents any store or service account either past due or being liquidated on time. Accounts payable should record the date of purchase, the name of company or person owed, the total amount of the account, the interest rate, and of all payments made on the account. The time payment arrangement on the refrigerator should be recorded.⁶ When records are thus kept, the remainder of any one of the types of indebtedness can be ascertained at any time.

These data set forth in the ledger accounts represent the long-time financial manipulations of the family case study in hand. This case study and the facts of the ledger account will be used again in computing the net worth sheet, page 186.

Other types of assets and liabilities commonly represented in family finance, but not found in the account of the case study, will be discussed here briefly.

In the account of assets there might be a *cash surplus*, in the form of cash reserves set aside in some place not easily accessible but available for emergencies or for known large expenditures. Such a surplus might be deducted from the checking account or kept in a saving account, either bank or postal.

Securities, including stocks and bonds, are other important assets frequently found in the family's investment account. The

⁵ The lending agency will furnish such a table to any client.

⁶ The problem of cost and the need for understanding payment arrangements before the contract is signed are discussed in connection with installment purchasing, page 211.

ledger should record all important data of each individual security.

Accounts receivable is still another type of asset, particularly important in the finances of the family of the professional man, such as the doctor, farmer, lawyer, or any person carrying open accounts for sale of services or goods to clients, patients, or customers. These accounts should be carefully recorded and documented, in order that the family may make proper collections in the event of death of the family earner.

Finally in the ledger account of assets is the *inventory of household and personal property*. The items are tangible assets and should be recognized as such, but they are difficult to evaluate with any degree of accuracy after time has passed. The question of the household inventory is frequently one upon which rests the whole approach to the ledger accounts and to the balancing of assets and liabilities. The question whether to give the items the original purchase price value or the resale of used-goods value is often argued. A simple solution, acceptable to the degree of accuracy required for this group of items, is as follows: Turn a part of the ledger into a permanent inventory of personal and household goods; record only relatively durable goods. Keep the inventory a growing one for a few years, say three or five,⁷ and at such intervals make a cross-section depreciation deduction on the total value of the inventory. The process of calculating individual item depreciation is difficult, discouraging, and unnecessary.

The ledger account of liabilities might also contain items of indebtedness not represented by the debts of our family case study. *Notes payable* are loans secured by notes. The recording in the ledger should cover all data on each individual loan. A possible part of the item *accounts payable* not found in the case study might be *accumulated* and unpaid *interest* or *taxes*. Ordinarily these items are a part of the current expense of a family, but for some reason, acceptable to the lender, the cost items have been allowed to accrue and are past due. These become an

⁷ If the family belongs to a group keeping records for analysis by an outside agency, the period used by all others in the group should be used by the given family.

indebtedness which should be recorded in the ledger account of liabilities until the indebtedness is removed.

THE NET WORTH OR BALANCE SHEET

The net worth or balance sheet is both a process and a record, and gives valuable information on financial status both for short-time and long-time planning. If the net worth of the family is computed year by year and recorded in a sequence (see Table XXIII) of years, the family knows exactly how it stands both in actual figures and in progressive change of net worth. The balance sheet is merely a careful computation and summation of the value of all assets and the same process for all indebtedness with the two balanced against each other. The result gives the net worth of the family at any given time. The net worth may be a minus quantity, in which case the family is insolvent, or in the red.

For our purpose, the analysis will be clearer if we examine a computed net worth sheet for the family case study whose ledger account we have just investigated. Referring to Table XXIII, note for 1937 the array of both assets and liabilities as taken from the ledger account of this family. The sheet is balanced first on January 1, 1937, for the year 1936; January 1, 1938, for 1937, etc. It has been necessary to make a few assumptions of financial performance from year to year which can readily be detected from a study of the sheet.

The inventory value of household goods has not been included on this sheet, for it is assumed that it has been kept separate as suggested in the discussion of household inventories, page 184. If the value of such an inventory had been added to the net worth sheet, the procedure would have been to add new purchases year by year until the year for deduction of depreciation arrives. That year the deduction would be made and the inventory value would decrease just that much, just as the reduced evaluation of any other assets might occur.

The importance of the net worth calculation cannot be overstated from the point of view of vital data for family knowledge. In fact, many would say that it is the most important single

TABLE XXIII
NET WORTH SHEET OF CASE STUDY FAMILY
MADE JANUARY 1, 1937, 1938, AND 1939

	1937	1938	1939	1940	1941
Assets					
Cash on hand in checking account	\$ 125	\$ 275	\$ 150		
Value of house	5,000	4,925	5,350*		
Cash value of two life-insurance policies	300	315	330		
Mortgage receivable	275	290	310		
Notes receivable	500	500			
	75	75	100		
	\$6,255	\$6,380	\$6,240		
Liabilities					
Mortgage					
Building and loan	\$3,000.00	\$2,775.00	\$2,540.00		
Loan on life insurance	250.00	200.00	150.00		
Accounts payable	187.75	25.39	65.00		
	\$3,437.75	\$3,000.39	\$2,755.00		
Balance					
	\$6,255.00	\$6,380.00	\$6,240.00		
	3,437.75	3,000.39	2,755.00		
	\$2,817.25	\$3,379.61	\$3,485.00		
Net change in worth		\$ 562.36	\$ 105.39		

* \$500 from mortgage receivable put into new porch on house.

finance record for the family, since it gives basic information at least once a year on the economic status of the group.

MONEY EXPENDITURE ACCOUNTS

The records of cash expenditure of current money income, commonly called household accounts, are the most insistently repetitive of the three types of records deemed essential to give data for family planning. It is the recording against which there is the greatest amount of resistance owing to the afore-noted lack of motivation. Kyrk suggests approaching the recording of ex-

penditures as a financial history of the family.⁸ Such an approach would be a form of motivation which might be interesting and real enough to convince the family of the genuine worth in accounts. Memory cannot possibly be relied upon for giving accurate information about many small repetitive expenditures, although it might be accurate on large expenses such as rent, insurance premiums, or even the cost of a coat or suit of clothes.

Account keeping can quite honestly be approached with full knowledge that different kinds of recordings will be done at different times and stages in the family cycle. There are periods in family life when the control of outgo and thus knowledge of expenditures are very important because there is either already a heavy demand upon income by a number of people or there is a growing demand due to changing conditions in the group. Accurate data are likely to be greatly needed when conditions are either uncertain or unknown. On the other hand, after the situation is fairly or quite well under control the rigor of recording can be slackened. Thus you will hear a homemaker say, "I used to keep accurate, detailed accounts but I don't any more." Which is to say that the pattern of expenditure is so well in mind that expenditure is now a habit and only brief data of change are needed to do the job well.

CHOOSING AN ACCOUNT SYSTEM

A system of accounting for the family can be evaluated by four easily understood criteria: *simplicity*, *adequacy*, *flexibility*, and *convenience*. If all four criteria are fulfilled, then the detailed and repetitive nature of accounts is reduced, interest can be sustained and motivation is more real.

CRITERIA OF ACCOUNT SYSTEMS

Simplicity. One of the major difficulties encountered by those who work with families in finance management is that the heat of first enthusiasm may lead the homemaker or family to be overly ambitious and to choose a system which has not been developed for her family or which is so elaborate that even a cost accountant would have difficulty with it. Simplicity is a

⁸ Kyrk, *Economic Problems of the Family*, pp. 411-415

virtue often overlooked, and certainly at the outset of account keeping is essential to sustained performance. Simple recording does not demand large blocks of time but makes use of slack moments when other time-consuming tasks are in progress. A simple system, easily accessible, can be comfortably integrated into daily routine.

Adequacy. The adequacy of a system is determined by how well it fits the needs of the group, and thus gives basic information. Ordinarily adequacy is not the result of chance but is reached only after considerable thought has been given to the family needs and ways of spending. It is the result of revamping and experimenting. The system is not adequate unless it tells you the facts you want to know, and it is not adequate if it tells you *more* than you *need* to know.

Flexibility. In the experimentation which leads to determining the adequacy of a system of accounts, the characteristic most needed is flexibility. Where to put a new set of expenses that shows up for a brief period and then is no longer in the list is often a difficult question to decide. The possibility of adjusting the system to requirements of changing circumstances or conditions, that elasticity which we crave in human endeavor, is a quality much needed in account keeping. Flexibility is then a desirable criterion to use in choosing and developing an accounting system.

Convenience. In accounting, convenience refers both to ease in recording and to ease in getting at and taking care of the system. If accounting is made a family project in which the children are allowed to help, both in recording and with the arithmetic involved, convenience of form is particularly important. A system which is not easily all kept together would hamper such group participation. For instance, a card file system, although it may be flexible and adequate, would be inconvenient for children to work with.

THE ACCOUNT PROCESS

What is the simplest recording of expenditures which might be made and which yet can be called an accounting system? Income, savings, and total expenditures, at least these three, would

need to be recorded. If a family wishes more adequate information, the expenditure section can be amplified to fit the needs of the group. Some families, for instance, may not spend money for rent; then that item would not appear. Others might have all food furnished, and that item would be omitted. Because the expenditures vary from family to family, it is necessary that the account system be adapted to each family if it is to give needed information for planning.

The fact that accounting is an individual family affair cannot be overemphasized. Unless a family is keeping accounts along with a group of families⁹ from which comparisons are being made, the decision of what to record and how to record it remains entirely with the family. As long as the recordings give the family finance history and thus the facts for adjustment, "the how" is a personal preference. Any device which the family through its ingenuity can discover to expedite recording, to make it a habitual performance, and to add reality and interest to the task is legitimate. *Habit* and *motivation* are the two greatest aids to account-keeping.

An example of a device which might simplify accounting is found in a family which operates on a system of dispensing money in many once-a-month items, that is, telephone, gas, light, maid, or even rent or amortized payments on a loan. A column called "once-a-month" items greatly simplifies the accounting process. The yearly plan and companion account form for recording expenditures given in the appendix shows how simple yet adequate a finance system can be. The sheets have been used by and adapted to a number of families with considerable success and satisfaction.

ACCOUNTING SYSTEMS IN CURRENT USE

Five types of accounting systems are in current use. These five, the sheet, cash payment envelope, account envelope, notebook, and card file system, are briefly evaluated on the following pages.

The Sheet. Records of expenditures may be kept on a single,

⁹In farm management associations and some extension programs, for example, account books are sent to a central point for summary, analysis, and comparison.

double, or multiple sheet. Evaluating the sheet system on the basis of the criteria for accounts shows the method to be simple, flexible, and convenient. Since the sheet can be tacked on the back of the bread board, the end of the cabinet, or the back of a door with a pencil hanging near by for recording, it is convenient. Its adequacy, however, is questionable. Naturally the double or multiple sheet is more adequate than the single. If the single sheet is well worked out, it may be large enough to give essential data.

Envelopes. Two types of envelope systems are currently used. One, really a cash payment system, consists of dividing the money into amounts previously planned, and placing the money for each group of items into separate envelopes to be dispensed as the need arrives. Such a system brings planning and accounting close together. The system as described is frequently used by people who receive their income weekly and who operate almost entirely on a cash method of payment. For the group operating on small means, the system is direct and simple, highly flexible, adequate, and convenient if money for change is anticipated and supplied. For the family operating on higher incomes payable in monthly or irregular installments, keeping such a large amount of money in cash might prove unsafe and inconvenient.

The second envelope type is a pure accounting system. A large manila envelope, either single or a double folder, is used. Into it all bills, slips, notations, and memoranda are put, pending a convenient time for recording. The outside of the envelope can be or is ruled for totaling and summarizing recordings. The system is simple, flexible, and convenient. It is likely to be adequate since, if there is not enough area on the outside of the envelope, a sheet can easily be added and slipped inside the envelope. Account envelopes which can be purchased often suggest a ledger account recording on the outside along with summaries. Such a ledger account is not adequate since the ledger should be permanent and the envelope account is only temporary, for a month or a year at the longest.

Notebooks. Bound or loose-leaf notebooks may be used in keeping accounts. The notebook may be simple if organization of content is simple and direct. Both bound and loose-leaf

books may be adequate and convenient. The bound book is not so flexible as the loose-leaf, since the possibility of adding new leaves and renewing old ones makes for flexibility. If the loose-leaf book is used, the metal strip fasteners are more durable than the ring type. The spiral is not a loose-leaf but a bound-book type. Notebooks are particularly convenient if children are aiding in account keeping, for they are durable and will withstand much handling.

Card File. The card file type of account system is highly flexible because of the possibility of expansion. It can be adequate, but it may not be simple or convenient, except for the person who enjoys a high degree of organization. If children are to aid in accounting, the card file is inadvisable, because of the possibility of mixing cards or even scattering them. The card file is really a one-man system.

NOTES TO ACCOUNT KEEPERS

1. Start simply.
2. Work out a system to suit your personal needs.
3. Stick to your account keeping until a habit is formed.
4. Control the accounts, do not let the accounts control you!

MANAGEMENT OF THE FAMILY OR INDIVIDUAL BANK ACCOUNT

This discussion of how to manage a bank account is concerned entirely with the customer's part in his contacts with the bank from day to day. The bank is organized like any business concern for service to its customers and also for earning a return. The major contact of the family with its bank is through the checking account, the savings account, and such credit operations as occur between the two.

THE CHECKING ACCOUNT

The checking account, or demand-deposit account, is a real aid in financing a family. If properly used, it provides a means of checking and balancing to see with what accuracy the home balances are kept. A checking account is not being efficiently used by the person who calls the bank and asks, "What is my balance today?" or by the depositor who habitually overdraws

his account. What good is the knowledge of the bank balance without a knowledge of all checks written and not cleared, and thus out against the balance?

Anyone who uses a bank for deposit of funds and who makes use of its services should make a point of understanding its methods of operation and should cooperate in fulfilling personal obligations to the bank. Such knowledge should be, ideally for the individual, a part of development during the growth period along with other essential knowledges. Experience with young women of high-school and college age, however, shows that a large majority of them have never written a check and a much larger number have never seen a customer's bank statement.¹⁰

Of first importance in one's contact with the bank is to know the officials and employees who serve you regularly. If you establish yourself personally with your bank, and manage your day-to-day use of the bank services with intelligence and business acumen, then if emergencies arise and additional funds are needed the bank will be as glad to serve you in credit services¹¹ as they are to serve in the ordinary daily operations. This, of course, assumes an income large enough to warrant credit operations.

The usual day-by-day contact with the bank is represented by the checking account and its use, that is, the sum on deposit and the checks drawn against it. In making the deposit the amount should be recorded in at least two places, in the bank book or on a duplicate deposit slip which can be kept on file, and on the stub of the check book furnished by the bank. The date of recording on the stub should correspond with that on the bank book or deposit slip.

A check stub is as neat and concise an organization for speed in calculation, for pertinent information for the customer, and for final check on the bank statement as will be found anywhere in accounting. The stub contains an amazing amount of infor-

¹⁰ For ten years one of the authors has asked each of her classes in home management how many have written checks and how many have seen a customer's bank statement. (The classes vary in size from thirty-two to fifty.) Seldom has she found more than ten who have written checks and never more than five who have seen a bank statement.

¹¹ For family credit, see pages 198 to 224.

mation, and if deposits and balances are accurately recorded the stub will be helpful in managing the account. The stub records the following: number of the check (valuable in saving time in checking the bank statement, page 194), the amount of the check, the date, the payee, the purpose for which the check was written, the balance carried forward after the previous check was drawn, the new deposits, the new balances, space for deducting amount of present check, and space for the balance to be carried forward to the next stub. If each item is carefully recorded and each calculation is carefully made, there is little excuse for overdrafts or lack of knowledge, allowing of course for occasional human error.

A BANK STATEMENT

Name of Bank

Account with _____

Dates of cleared checks				\$50.50
			Deposits	Balance
June 5	1.00	5.00	10.00	\$ 34.50
June 10	3.00	6.00	25.00	50.50
June 18	1.00	10.00	1.00	38.50
June 25	20.00		10.00	28.50
June 30	0.50*	0.20*		27.50

* Service charges.

The accurate check stub is not only a bearer of information but also a steppingstone to a more important device for proper use of the checking account, *which is a checking of the bank statement*. A bank statement is a document prepared by the bank each month for each depositor. It may be secured upon request at the bank or it will be mailed out each month on request. The

checking of this statement is a simple process, which *assures temporary solvency* for the individual or family and which saves the bank extra trouble and labor.

A typical bank statement is reproduced on page 193. Examination shows three columns. The one to the left is the space for recording all checks which have been cleared¹² on a given day. (Note: not those written on a given day.) The middle column contains a space for recording deposits as made, and the dates of such deposits should correspond to the dates in the bank book or on duplicate slips. The right-hand column is used by the bank for recording the balance day by day. Together with the statement will be found all canceled checks which have been cleared.

The steps in checking the bank statement are:

Compare deposits in the middle column with your record of deposits in bank book or duplicate deposit file and with deposits on check stubs.

Compare checks as returned with the left-hand column recordings of checks cleared day by day to see that no error has been made on this score.

Arrange checks in numerical order. This step shows the value of numbering checks.

Compare cleared checks, particularly the amounts, with stubs to see that no error has been made on your part.

Record at the bottom or on the back of your bank statement all checks you have written and which have not been cleared.

Add to the total of the uncleared checks your own check-book balance as of the date you are checking.

From this total subtract any bank charges (see statement on page 193). The \$0.50 and the \$0.20 on the statement are charges for services; the 50 cents is a service charge commonly made for an account which falls below \$100, and the 20 cents is a charge of 4 cents per check cleared over a certain number allowed, a frequent service charge.

Now compare your calculations with the bank balance. The two should be identical. If the two balances, your check-book and the bank balance, are not identical, trace the error (that is, if you wish 100 per cent balance).

¹² "Cleared" means checks returned to the bank and amount on the check paid to payee and correspondingly deducted from the sum on deposit.

MANAGEMENT OF A JOINT OR MULTIPLE CHECKING ACCOUNT

The joint account is used by two people, usually husband and wife, and the multiple account is used by more than two, usually members of a family. The management of such accounts, so far as the bank is concerned, is no different from that of any deposit account except that the names of the persons using the account must be registered. The responsibility for the use of a joint or multiple account lies in the hands of the two or the group using it, and not with the bank. A multiple account can be a great convenience for a family, for it makes possible disbursements or available cash to anyone in the group, whereas depending upon one signature may cause delay or inconvenience. At the same time the procedure is fraught with danger, for carelessness or irresponsible use of funds by any member of the group may cause embarrassment for both the family and the bank.

The joint or multiple account to be properly handled must be worked as a cooperative enterprise of the highest type. One person should be in charge of such an arrangement, and each person who is free to check on the deposited sum will need to report promptly to the one in charge when a check is drawn.

Unquestionably there are many family multiple accounts, and the success of their use in all probability depends upon the fundamental total training of individuals in the group. One father who had two sons and one daughter in college at the same time was overheard to say he did not believe in children's allowances. When questioned as to his policies and philosophy of children's participation in income use, he answered, "All three of my children have check books and are privileged to draw funds as they need them so long as they notify me that they have done so." When further questioned as to dangers of the children overusing funds or taking advantage of the privilege, he answered, "They never have yet, and when they do it will be my fault in guidance and training."

THE SAVINGS ACCOUNT

The savings account is another service offered by the bank that is useful in family finance. Funds are less accessible in a savings account than in a checking account and are usually withdrawn only to meet peak loads or emergencies. The bank has a

legal right to require a certain period of time to elapse between the request for withdrawal of funds from a savings account and the payment of the amount. Most banks, however, consider their savings accounts as demand deposits and refund them on request. The bank pays only a small interest rate on the savings deposits because the account is more of a service to depositors than a sum for lending by the bank.

Since the interest rate is low, at times nil, the savings account should not be allowed to grow very large unless the funds are to be directed promptly to some given purpose. The funds saved, except the emergency fund, should be invested in some income-yielding form as soon as the amount is large enough to warrant a transfer.

The savings account may be personal or joint. The joint account is a convenience in the event of an emergency or death, for the funds are still available for the codepositor's use. When interest is paid on a bank savings account, it is automatically computed quarterly and thus is compounded with no need for the depositor's personal attention. In conclusion, it may be said that the funds in the savings account are just as secure as the bank is secure and safe.

POSTAL SAVINGS

Postal savings, although not a bank service, are discussed here because frequently family emergency funds are placed in the postal savings department of the United States Post Office for safekeeping. During the recent depression postal savings deposits rose unprecedently. Within four years 1930-1933, the funds deposited in postal savings mounted four times over the total deposit during postal savings' entire previous existence,¹³ from \$250,000,000 to \$1,000,000,000. This phenomenon is partly the result of the fear psychology that usually accompanies such stress periods, and also it is based upon the belief that the government is the safest available repository for cash funds.¹⁴ The

¹³ Postal savings service established in 1910.

¹⁴ At the same period of increase in postal savings deposits, demand for government bonds increased.

advantage of the postal savings account is obviously, then, safety of principal.

The disadvantages of postal savings for family use should always be weighed against the single advantage of safety. The interest rate is low, but no lower than bank savings, so that disadvantage need carry little weight. The first of two major disadvantages of postal savings is that the interest is not computed automatically and thus the depositor must make a personal application for his interest and redeposit the amount to principal in order to receive the compound interest return.

The second disadvantage, more serious for family finance than the first, is that the account may *never* be joint, but must always be in one name, and no one but the person in whose name the account is carried may make either deposits or withdrawals. Since the savings account is primarily an emergency or peak-load fund and not a form of investment, the purpose for which it is directed is thus jeopardized. In the event of the death or incapacity of the depositor, the sum in postal savings must await the full term of administration of the estate before it is available for use. Because of this, many families have divided the sum into two accounts, half in the husband's and half in the wife's name. The question then arises, what about the security of the children in case of accident and death of both father and mother? This is a question which can be answered only by individual families. A decision to put free funds in postal savings should be made with full knowledge of its limitations to serve as an effective repository for emergency funds and should not be made merely on the basis of safety.

CHAPTER XIV

CREDIT IN FAMILY FINANCE

Credit is the process of getting money, goods, or service in the present and paying for it in the future. In reality, it is a process of postponed payment. At any given time such postponement increases purchasing power and thus makes possible the provision of more goods or services than the cash on hand will allow. Since repayment of the amount borrowed plus interest for its use must eventually be made, the family should understand the nature and operation of credit.

WHAT SHOULD THE FAMILY UNDERSTAND ABOUT CREDIT?

Before using credit, the family should consider not only the satisfaction of the immediate possession of the goods but also the future adjustments to be imposed by repayment. Although credit increases purchasing power at any given moment, unless the purchase makes possible additional earning power, the final total purchasing power is not really increased but the time of payment is merely delayed.

For example, borrowing for the purchase of a radio, through either the installment plan or a loan granted for its purchase, will not increase the final total purchasing power unless through the loan the purchaser has been able to secure the good at a lower price with immediate cash payment than he would otherwise have to pay. Even the purchase price must be lower than the loan plus interest on the loan. On the other hand, a typewriter which is to be used not only for personal service but also for earning may pay for itself plus the interest, and thus any earnings beyond this cost is increased purchasing power. During the period of repayment the amount borrowed is merely used alternatively, and the decision for postponed payment is for increasing purchasing power and not for satisfaction alone.

The family that borrows for the purchase of a time- or a

labor-saving device, on the other hand, reasons differently. *Real income* return from the services of the good, and not increased purchasing power, is the major consideration. The energy and time input of persons in the given activity are here weighed against the use of this same energy and time released by the performance of the piece of equipment. At this point the issue is the alternative use of the released time and energy. If these released resources go into activities for personal or family life, then there is a total service gain; if not, then the decision to make the purchase is on the basis of the satisfaction of immediate use of the article rather than on the basis of increased real income.

WHY DO FAMILIES BORROW?

The majority of families that borrow do so to meet needs or obligations. The needs may be real or imaginary. If the initial cost of a good seems too large an amount to save before the purchase is made, some individuals borrow to have the good immediately. Life is passing, and the satisfactions can be increased if more purchasing power is available at a given time to help spread the cost of a given want. This procedure assumes an easy credit load in the family which does not cause maladjustments during the repayment period. This psychology is found among many families that buy their houses on the amortized mortgage plan. They have some cash, they borrow, they build, they live in satisfaction of ownership. Although building credit is not consumer credit in the strict sense of the word, it is a form of credit used by many families for buying housing. Many families follow the same reasoning in deciding to use the installment method for the purchase of luxury goods. The excessive cost of satisfying a desire which is not an essential is one that the family should consider carefully.

Often credit is used by a family to repay an accumulation of small debts or bills. Such an arrangement, it is argued, makes it possible to be indebted to one major agency rather than to a number of smaller creditors. This situation resolves itself quite as much to a question of "How did you get this way?" as "What shall you do about it?" The decision to borrow for such an

exigency involves the realization that future adjustment *has* to be made in order to liquidate the debt either in bill form or as a larger single loan.

Another reason for borrowing is to meet family emergencies. The wisdom of this reason can hardly be questioned. Such manipulation of resources is a part of the philosophy of family finance developed in the foregoing chapter on building a capital fund. So far as current money income allows, a capital fund is built partly for the purpose of meeting unexpected or expected peak loads. If these loads are anticipated and prepared for, the security of the group is strengthened. The self-supporting and self-sufficient family can always use credit in emergencies and do so with a feeling of self-respect.

Another group uses credit because the insistency of the want at the present time overshadows the dimly realized future responsibility to repay. This group borrows in order to possess more commodities than the income allows, such as fur coats, automobiles, and furniture. Many self-supporting families that manage their finances well use credit for the purchase of these commodities, and profit thereby. On the other extreme are the families portrayed in the book *If I Have Four Apples*, a ceaseless round of much getting into debt and little getting out.

KINDS OF CREDIT

Credit may be classified according to use into three major kinds: (1) investment credit, (2) commercial credit, and (3) consumer credit.

Investment credit represents long-time credit, usually for the development of large-scale projects of industry. It enters family finance, as the name implies, as a form of income-yielding property or investment for the family capital fund. The two major examples are the family's purchase of bonds, which are loans to going enterprises, government or industrial, and mortgages which are loans made on real estate. Mortgages also enter as part of the financing of home ownership in providing housing for the family.¹

Commercial credit is a form of short-time credit used in

¹ For fuller discussion of these two credit instruments see page 224.

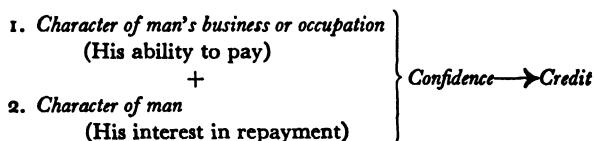
financing small productive concerns or the movements of goods between manufacturer and retailer. Such credit is used for enterprises with relatively short periods of turnover of goods. It enters family finance indirectly only, as it affects the price paid for goods.

Consumer credit is the credit used for the purchase of goods and services for satisfying wants as they occur day by day. Like investment credit it enters directly into family finance. It is the type of indebtedness most frequently used and requires careful planning to liquidate in order to prevent eventual insolvency.

Some argue that the family's use of credit is a good thing since it forces planning when moral suasion would not. Needless to say, this point of view is too extreme, since even with planning, be it ever so careful, overuse of credit is entirely possible and may be disastrous to family life and development.

BASIS OF CREDIT

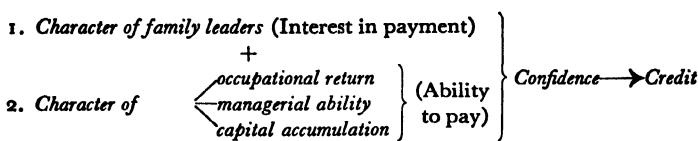
Fundamentally, credit is based upon human conduct or behavior. Upon a man's character, as revealed in his business or occupational pursuits, is based his ability to pay. Upon his character is based an evaluation of his interest in his obligation to pay or repay. His ability to pay and his interest in repayment determine the resultant faith in the human being, called confidence. Upon confidence, the belief that people can and will meet their debt obligations, credit is built. Note the schematic presentation:



Family credit is based on the character of the man and woman making up the marriage and on the quality of family financial behavior. The interest of the family members in paying their obligations and their joint efforts in doing so because of that interest in large part determine the amount of credit they should attempt to secure. Such cooperative effort is notably exemplified by the attitude of the farm family, wife and children, in helping

the farmer meet debt obligations. Agents of the farm management associations report that the attitude of the family is an important factor in the progress of the farm enterprise and in the liquidation of farm debts.

The family's ability to repay is further dependent on the capital fund which it has been able to accumulate, on the family's earning power, and on the managerial ability of the woman in the home. Following is a schematic presentation of a basis for family credit:



If either of these two factors breaks down, confidence is lessened and credit for the group affected. Obviously a family strong in both interest in payment and ability to pay will have little difficulty in securing credit on excellent terms.

LIMITATION IN A FAMILY'S USE OF CREDIT

How much credit can a family use and yet live comfortably and progressively? The following series of figures will help each family to visualize its own limitations in credit use.

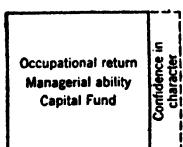


FIGURE 11. The solid square is a base representing the three aspects of the family's ability to pay. The dotted section represents the confidence as the outgrowth of the ability to pay, plus character. The true base, then, is the sum of the two.

ing greater borrowing power.

Figures 11 and 12 show the base of credit and how the factors limit expansion. Figure 13 indicates how the superstructures of two families with like occupational return (salary or wage) can be quite different. It shows how one can be larger than the other because of the quality of difference in character and thus difference in confidence. The first family raising a larger superstructure of credit will remain solvent and the second not. The likelihood is that either the managerial ability of the first family or its capital accumulation or the character of the individuals makes a larger dotted section of confidence for the first family, allowing greater borrowing power.

One can readily see that if anything happened to shake or change the confidence in the family whose credit transactions are represented in the dotted section Figure 13, and credit was partially or wholly withdrawn, insolvency would inevitably result. Reduced confidence would so weaken the superstructure that collapse would be inevitable. Thus, the sound credit super-

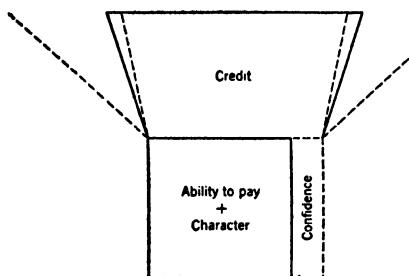


FIG. 12.

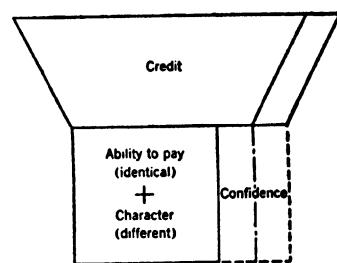


FIG. 13.

FIGURE 12. The base is identical with Figure 11. With the solid square plus confidence as a complete base, a superstructure has been raised which represents credit or increased purchasing power at the moment. The dotted lines radiating from the base represent credit expansion. They can be extended only as long as the base will carry the superstructure.

FIGURE 13. The solid square representing the ability to pay is identical for two families. Character, interest in payment, varies. The dotted line shows the confidence of the first family, thus the extent of its credit base; the broken line shows the confidence of the other family with its limit of base for a superstructure of credit.

structure for any family is one which is constantly in an easy relationship to the base upon which it is raised.

The family that habitually allows its superstructure of credit to extend to the limits of a reasonable relationship with its base is in danger. The one that habitually raises its superstructure above an intelligent relationship can know its inevitable fate. *Insolvency!* The family that keeps a credit superstructure in easy and comfortable relationship to the base will be the self-sufficient family and the one with sustained solvency.

The foregoing analysis will help the family answer the question of *how much* credit it can afford, but it does not answer the question *when* credit obligations can be assumed, or *to what extent* the use of credit is justified. Whether the family should borrow, whether it is a good thing for the group, is a matter that

each family must decide on each occasion of borrowing. There are certain questions that the family can pose for itself which, if answered honestly and realistically, can guide in making an intelligent decision. Such questions would be:

All credit is an added cost; exactly what is the cost we plan to assume?

Does the use of the credit add needed and essential utility or satisfaction, or is it merely something that is desired?

Will the cost of the credit mean that something will have to be given up in order to carry the cost of the credit?

Is an essential being given up for a non-essential?

If the credit is a long-time commitment, what will a change in the business cycle mean to the family in terms of future deprivations in order to carry the credit load?

What is the present business situation, and what is the probable business outlook throughout the term of the contract?

Can the family justify assuming the credit load?

COSTS OF CONSUMER CREDIT

Because the pressure of urgent need is usually upon the family before the decision to borrow is made, the choice of the source of credit is sometimes hasty and unwise. In purchasing such tangible goods as a suit or a coat, one shops around in order to get a dollar's worth for the dollar spent. The same method should be used in purchasing credit, that is, one should shop around for the best buy in the credit transaction.

THE NEED FOR INVESTIGATING SOURCES OF CREDIT

A number of credit dealers, with different charges for credit extended and with different standards of business ethics and tactics, offer credit to individuals and families. Few families know where, outside of banks, to seek good credit terms.

The most widely advertised agencies are usually those that have developed high-pressure salesmanship in attempting to lure borrowers. Consumer credit is expensive, and the risk involved in its use may be quite real. The individual or family needing credit will do well to look around before finally placing the loan.

Lending for consumption purposes happens to be a form of business enterprise which is protected by the borrower's desire for extreme privacy in the operation. He is often willing to pay any charge in order to maintain privacy, because of the stigma that has been attached to the use of credit. The usual result of the pressure of need (or desire) plus the stigma is that little investigation is made of available credit sources. Many a family has consequently lost property that was used as security; wages have been assigned by the creditor to collect overdue indebtedness; and many times all available salable products have been taken from sale to meet payment on the loan.

In a group of counties in a midwestern state during the stress period of 1931-1933 farmers borrowed appreciable sums from small-loan and personal-finance companies. The homemakers of these families reported that during this period credit collectors forced the surrender of milk and eggs which had been retained from the sale for the children of the family. This is an argument against the method used in collection, to be sure, but it is also an argument against the fallacy of families' using sources of credit in which the full import of charge and collection methods is not understood.

We have said that consumer credit is expensive. In addition to high cost, the true interest, both rate and amount, is difficult to ascertain. Foster has said that often credit terms are a jumble of percentages added; percentages deducted; percentages applied to cash prices, to original unpaid balances, or to declining unpaid balances; special charges for investigation, insurance, registration, and what not.² The importance of investigating the kinds of credit services in a particular community cannot be overemphasized, since it is as good business for the borrower to do the best for himself in buying his credit as it is in any purchase he may make.

REASONS FOR THE HIGH COST OF CONSUMER CREDIT

Three main reasons are found for the high cost of consumer credit. First, consumers usually want small loans, and the per

² L. B. Foster, "Credit for Consumers," *Pamphlet 5*, Public Affairs Committee, 1936, p. 26.

dollar cost to make and collect this type of loan is greater than for larger loans made for production purposes. The cost of investigation per loan is high and the cost of collection is high, a costly person-to-person method of collection sometimes being required. The bookkeeping, accounting cost, notices, etc., are a large item in the consumer credit transaction because the loan is usually liquidated in small amounts through a long period of time.

A second reason for the high cost of consumer credit is the risk factor due to losses. Even though the amount of the loan per individual is small there are innumerable individual loans and in the aggregate the losses may amount to an appreciable sum.

The third cause of high cost of consumer credit is the difficulty in getting capital to flow into this type of financing. Because there is no visible product to show for sale and the loan must liquidate itself, controllers of capital view the field skeptically.³

SOURCES OF CREDIT FOR FAMILY CONSUMER USE

Consumer credit services which every family will have access to, regardless of the size of the local community, are discussed on the following pages. It remains the responsibility of each family to canvass its own community and make comparisons of the best sources for credit. There are few families who in the course of a life cycle do not need credit services for some purpose. As a test of social benefit of credit services for all, Foster says, "The ideal, from the social standpoint, is a full loan service on a business basis for every self-supporting family that can make good use of it. As long as the purpose of the loan is constructive, the cost not unduly high, and the payments within the ability of the borrower, a loan is as well justified in the case of a \$15 a week clerk as a \$50 a week machinist."⁴

COMMERCIAL BANK CREDIT

The ordinary commercial bank is organized primarily to give commercial credit and not for making consumer loans. How-

³ *Ibid.*, pp. 25-26.

⁴ *Ibid.*, p. 29.

ever, most local banks offer credit, as well as other services, to customers who have security or the established ability to pay through earning power, wages or salary. Borrowing on tangible security from the bank instead of on a promise to pay by self or cosigner is the cheapest form of credit for the family. The terms are on the basis of the going rate of interest, usually 5 per cent to 7 per cent, and the time is 60 to 90 days with renewal privilege. Sometimes arrangements for longer time can be made, although the bank usually prefers a shorter time with renewal. This source of credit requires a bank connection. The possibility of securing inexpensive credit is one good reason why a family should build a capital fund, small or large, which can be used for periods when need for cash is in excess of ready cash.

Many commercial banks have two sources of consumer loans. The process referred to above is the regular credit operation of the commercial bank service to its customers. The second source of consumer loans is the *personal-loan department*. This department operates under the general banking laws and not under small-loan laws. The interest charges cannot be higher than those allowed on the regular loans, but the ultimate cost to the consumer is higher because of added fees, discounts in advance, or fines for late payments. The rate of interest is usually not less than 7 per cent and may run to 20 to 23 per cent. Even though the rate of interest is higher than on a customer's collateral loan, the service of the personal-loan department of a reputable bank provides one of the more economical sources of loans for consumer credit. A disadvantage of the service to some is that the security for such loans is the signatures of two or three cosigners, usually two. Since many families prefer either privacy in their credit operations or independence from responsibilities to others, they usually choose to pay a higher rate and not be under obligation to cosigners.

LIFE-INSURANCE-POLICY LOANS

A loan on a life-insurance policy resembles closely a bank collateral loan in that it is made on the basis of tangible security. In the policy loan the fund is built up by the policyholder in advance of the privilege of making the loan. The basis for the

loan is the cash, or loan, value as recorded on the policy, usually in table form, showing exactly the cash value year by year. This cash value is in reality the summation of the portion of each premium which is required by law to be allocated to a reserve to be built up for eventual repayment of the policy when it comes due. Cash or loan value, then, is literally a fund built up by the policyholder, and can be used either for cash surrender or as security for a loan. Since the fund is there, the rate of interest is low, usually 6 per cent, and there is no time limit required for repayment.

Although the policy loan is a possible source of credit, insurance companies tend to discourage customers' borrowing on policies, since borrowing jeopardizes the protective feature of the insurance. In event of death and payment of the policy during the time there is a loan on it, the beneficiary is paid the remainder after the amount of the loan plus any unpaid interest is deducted from the face value of the policy.

PERSONAL OR FAMILY LOANS

Person-to-person or family loans should be mentioned in connection with sources of consumer credit. If the lender is known to the borrower, loans are usually available at reasonable cost. Unlicensed lenders of personal loans, when the persons involved in the transaction are strangers, are likely to charge excessively high interest (page 221). The volume of credit in the form of personal or family loans is unquestionably large. Statements of amounts can be only estimates.

Any discussion of family credit as a part of financing a family should mention the universally lax business methods current in credit operations among family members. Many times families make family loans with no record of the transaction by note or statement. Family debt and credit arrangements should be recorded legally in the same way as any outside credit operation, in order to avoid grave injustices which can and often do arise in families. Good business acumen is as important among family members and friends as in a transaction with a merchant or banker. Record family loans to family members!

STORE CREDIT

Probably the most widely used source of credit by families in their day-by-day activities and operations is *store credit* or *book credit*. Store credit is of two kinds: charge accounts or open book accounts, in reality 30-day credit, and installment buying or time accounts.

Charge Accounts. Charging articles purchased with once-a-month payment is now such an accepted part of the American way of life that many people do not realize that their open accounts on retail dealers' books lead the credit list for consumption use. So much is the charge account used as a convenience that we overlook the fact that, every time any item is charged at the store, we are asking for a bit of credit. Probably such oblivion exists because a trip to the bank or to a personal-finance company with request for credit makes one exceedingly aware of the cost of credit, whereas on the open account, since no bill for credit accompanies the monthly statement, we are not conscious of the credit cost. The cost of such service is present, nevertheless, and is included in the price paid for the goods purchased.

The customer who operates with charge accounts not only buys the good but also borrows the price of the good until the bill is paid. Usually the time of payment is the tenth of the month following the purchase of the goods, but many stores do not enforce the regulation strictly and accounts may be allowed to run for 60 to 90 days. Certain types of stores, notably department, furniture, and grocery stores, are more lenient than others in allowing accounts to stand.

Such leniency in credit extended to customers frequently causes family bills to pile up and is an important reason for need of further credit. Certain services purchased repetitively by families render their bills but once a month, and if payment is delinquent the service is cut off. On the other hand a discount is given if the bill is paid by or before the tenth of the month. Public utilities, that is, gas, electricity, and telephone services, usually operate under such a credit arrangement.

In some localities, by agreement of the local credit association of the community, a charge of a small percentage of the unpaid

bill, usually 1 to 2 per cent, is added to the next month's bill if payment has not been made within 30 days after the rendering of the bill.

Although the advantages of charge accounts are obvious, the disadvantages are not always so well recognized. What is convenience to the family that charges is a cost to the one that pays cash in a store with one price. A major disadvantage for the family that uses the charge account is that, without a plan for family expenditures, the charging may get out of hand and result in indebtedness beyond ability to pay. For those who cannot exercise control, a cash-payment plan is often the wisest course to follow. For those who can control expenditures either by planning or moral suasion, the charge account is a great convenience and its use is entirely justifiable.

Installment Buying or Time Accounts. Purchasing by the installment method is the second form of store credit. Installment credit ranks second to open accounts in volume of consumer credit. Installment buying means getting the use of but not the title to the goods in the present and paying for this use in small installments through a stated period of time. At the end of the payment period legal possession of the goods is transferred to the buyer. Who owns the goods during payment is a point which is frequently overlooked by the buyer, and great surprise is often evidenced when on delinquency of payments the true owner repossesses the goods.

The following quotation is from a time-payment agreement of one of the leading mail-order houses:

"The title to and right of possession of the property shall remain with you (the store) until I have paid in full. I agree to protect and not sell, mortgage, remove or otherwise deprive you of right of possession without your written consent, and upon default of any payment or payments, you may, at your option, take back the merchandise or affirm the sale and hold me liable for the full unpaid balance."⁵ There follows the requirement that the signature must be that of the head of the household. In brief, the buyer on the installment base pays for the use of the article during payment time and becomes owner only when the final payment is made.

⁵ Sears, Roebuck catalog, 1939-1940, Easy-payment order blank.

The general economic and ethical aspects of installment buying will not be discussed here.⁶ As a method of purchase and as a source of consumer credit, installment buying is undoubtedly here to stay.

Foster says, "Installment credit is now available for the purchase of nearly everything from bassinets to gravestones. This does not mean that every store will sell on time to every customer; but it does mean that so many kinds of stores with so many kinds of merchandise, at such widely varying prices, have adopted so many species of easy payment plans, with such diverse carrying charges, that a vast majority of families can find at least one seller who is glad to oblige."⁷

Family Use of Installment Credit. How shall a family determine whether or not to use the installment method of purchase as a source of credit in its finance management? First, if financial resources are to be approached in a rational manner, the family must face facts as they are. Three questions must be considered in connection with any purchase for which cash on hand is insufficient. Shall the family save and pay cash, and thus await the possession of the good? Shall they have the good in the present and borrow to make a cash payment? Shall they have the good in the present and use mercantile credit? If the price of the purchase is more than can be paid in thirty days, an affirmative answer to this third question means the use of installment credit.

The intelligent decision must be based on a comparison of costs of the various buying methods. Obviously the cheapest method is to save and pay cash. But if the family wishes to have the use of the good before cash purchase is possible, then the use of credit is the only answer. What then? Again, *face facts*. Which is the cheaper: to borrow and pay cash or to use the installment method? This decision will be based upon cost in extra dollars added to purchase price and cost in interest rate. Since credit is usually purchased on the basis of rate of interest, a comparison of rates is an intelligent approach.

While it may be possible eventually to arrive at the cost in

⁶ See Margaret Reid, *Consumers and the Market*, New York: F. S. Croft and Company, Chapter 17.

⁷ *Credit for Consumer*, p. 8.

terms of interest rate when borrowing from a lending agency,⁸ such information is almost impossible to obtain for installment selling. Sellers say openly that the buyer is not interested in interest rates; all, they say, the buyer wants to know is how much more the good will cost in dollars. Foster says, "The cost of credit, as installment schedules are now drawn, is one of the features most difficult of appraisal. Seemingly credit terms are often made unnecessarily complex with deliberate aim of confusing or deceiving the customers."⁹ The studies which have been made on the cost of installment selling show wide variation in quoted interest and the actual interest charged on installment sales, and a wide variation from a fair rate to a rate entirely out of reason.

How can the family find facts about credit cost? If the family decide to use the installment method, they should shop around to find the best buy in terms of rate. There are certain types of information which the buyer can rightfully demand of the seller

TABLE XXIV
TIME PAYMENT PLAN OF MAIL-ORDER HOUSE I
1939-1940

Cash Price	Carrying Charge	Down Payment	Monthly Payment
\$ 10.00- 11.00	\$ 1.00		
16.01- 17.00	1.45	\$ 2.00	\$ 2.00
17.01- 18.00	1.50		
21.01- 22.00	1.90	2.50	3.00
47.51- 50.00	4.40	5.00	5.00
85.01- 90.00	7.95		
95.01-100.00	8.95	8.00	8.00
100.01-110.00	9.50	10.00	9.00
180.01-190.00	16.00		
190.01-200.00	17.70	18.00	12.00
200.01-225.00	19.00	22.50	14.00

⁸ See costs in discussion of other sources of consumer credit.

⁹ L. Barron Foster, "Installment Credit Costs and the Consumer," *Journal of Business*, University of Chicago, Vol. VIII, No. 1 (January, 1935), p. 29.

and which he should insist upon having. Most important is the true difference between the *cash price* and the *installment price*. Any buyer who does not demand that much information is indeed foolish! Even though the seller declines to give the interest rate (and many sales persons on the floors honestly do not know and thus *cannot* give the rate), the buyer, with the knowledge of cash price, installment price, down payment, and monthly payments, can figure an interest rate for any month. This may not prove to be the actual rate but will at least be a minimum and having that knowledge will be better than buying blindly.

Examination of a few time payment plans currently offered families will clarify the problem of determination of rates. Time payment schedules of two mail-order houses are given in Tables XXIV and XXV. The tables include comparable prices used in the computation of Table XXVI, which is a comparison of both the dollar cost and interest rate cost of the two houses.

TABLE XXV
TIME PAYMENT PLAN OF MAIL-ORDER HOUSE II 1939-1940 *

Cash Price	Down Payment	Monthly Payment
\$10.00-15.00	\$2.00	
15.01-17.50	2.50	\$2.00
17.51-20.00	2.50	
20.01-23.00	3.00	3.00
23.01-28.00	3.00	
28.01-30.00	3.00	4.00
30.01-40.00	4.00	
40.01-55.00	5.00	5.00
55.01-60.00	5.00	
60.01-66.00	6.00	6.00
88.01-90.00	8.00	
90.01-100.00	9.00	
100.01-110.00	10.00	8.00
165.01-175.00	15.00	
175.01-200.00	20.00	
200.01-222.50	22.50	12.00
445.01-450.00	45.00	
450.01-500.00	50.00	25.00

* "The carrying charge is 10 per cent of the unpaid balance after deducting the down payment."

TABLE XXVI
 COMPARATIVE COST CALCULATION, IN DOLLARS AND PERCENTAGE INTEREST RATE, ON VARIOUS SUMS APPEARING IN TWO
 1939-1940 MAIL-ORDER CATALOGUE TIME PAYMENT PLAN TABLES

Cash Price	Time Price	Carrying Charge	Down Payment	Monthly Payments	Total Amount Borrowed Any Given Month	Months to Pay off	Interest Rate per Month	Interest Rate per Year
		Mail-Order House I					Per cent	Per cent
\$ 10.00	\$ 11.00	\$ 1.00	\$ 2.00	\$ 2.00	\$ 25.00	5	4	48.00
50.00	54.40	4.40	5.00	5.00	269.00	10	1.63	19.56
100.00	108.95	8.95	8.00	8.00	688.35	13	1.30	15.60
200.00	217.70	17.70	18.00	12.00	1,772.90	17	.099	11.88
500.00	Not Recorded in Table							
		Mail-Order House II					Per cent	Per cent
\$ 10.00	\$ 10.80	\$.80	\$ 2.00	\$ 2.00	\$ 24.00	5	3.3	39.60
50.00	54.50	4.50	5.00	5.00	270.00	10	1.66	19.92
100.00	109.10	9.10	9.00	8.00	677.30	13	1.34	16.08
200.00	218.00	18.00	20.00	12.00	1,734.00	17	1.0	12.00
500.00	545.00	45.00	50.00	25.00	5,335.00	21	.084	10.08

Referring to the data in Table XXVI, on a time purchase of \$50 at house I, the cash price is \$50, the time payment price is \$54.40, with \$5 down payment and \$5 payable per month until the good is paid for. With this information it will be possible to compute the approximate amount of credit extended by calculating the unpaid balance for each month. The first month, after subtracting the down payment of \$5, the credit allowed is \$49.40. The credit extended in each succeeding month will be minus the \$5 monthly payment; thus the second month it is \$44.40, the third it is \$39.40, the fourth \$34.40, and so on to the tenth month, which leaves \$4.40 as a last amount upon which credit is given. Add the amount of credit extended for all ten months in order to find the credit given for any one month. The total is \$269, the credit extended for any one month. The \$4.40 carrying charge for the credit extended amounts to at least 1.63 per cent per month or 19.56 per cent per year.

Now turn to the \$50 purchase on the time plan for house II, Table XXVI. The cash price is \$50, the time payment price is \$54.50, with a carrying charge of \$4.50, a down payment of \$5, and \$5 payable per month until the debt is liquidated. Computing the amount of credit in the same way as before, the credit offered for the first month is \$49.50, for the second month \$44.50, and so on down to \$4.50 the tenth month, making an equivalent of \$270 credit extended in any given month. The charge of \$4.50 for this credit is at a rate of at least 1.66 per cent per month or 19.92 per cent a year. Obviously, there is not a very great difference between the two houses on a purchase amounting to \$50.

The picture is somewhat different if we consider a \$100 purchase on time. Again referring to Table XXVI, note the per month and per year rate for house I on a \$100 purchase. The rate is 1.30 per cent per month or 15.60 per cent per year. For house II the rate is 1.34 per cent per month and 16.08 per cent per year.

The greatest difference in rate between the two houses occurs with the smallest purchase, \$10. The computed rate for \$10 for house I is 4 per cent per month and 48 per cent per year, while for house II on the same amount the rate is 3.3 per cent per

month and 39.60 per cent per year—quite an appreciable difference. Notice also that in both houses as the amount increases the rate of interest decreases.

A further illustration of the value to a family of computing installment credit costs, if cash price, time price, down payment, and per month cost are given, is found in Table XXVII. The

TABLE XXVII

COMPARATIVE COSTS OF FOUR MECHANICAL REFRIGERATORS (SIX-CUBIC-FOOT SIZE)* IN DOLLARS AND PER CENT INTEREST RATE PER MONTH AND PER YEAR, TIME PAYMENT TERMS, 1939-1940

House or Company	Cash Price	Time Price	Carrying Charge	Down Payment	Monthly Payment	Total Amounts Borrowed Any Month	Months Pay-off	Interest Rate per Month (per cent)	Interest Rate per Year (per cent)
I	\$114.50	\$125.45	\$10.95	\$ 5.00	\$ 5.00	\$1,510.80	24	.007	.084
II	102.95	112.85	9.85	4.00	4.00	1,235.80	28	.007	.084
III	116.50	128.15	11.65	5.00	5.00	1,538.75	25	.007	.084
IV	120.00	122.75	2.75	20.00	10.00	550.00	10	.005	.06

* I and II, mail-order house catalogues; III and IV, local dealer quotations.

comparative costs, on the same basis of calculation, are given for the offerings of four sellers of a six-cubic-foot mechanical refrigerator. Two of the sellers are the two mail-order houses from which the time payment plans are taken. The price quotations for the refrigerators from both sources are taken from the write-up of the good, however, instead of from the table of time payments. The two other quotations are from two dealers in a midwestern town of 12,000 people.

Why are families willing to pay such high rates of interest on installment credit? First, they are unaware that they are paying high rates; second, the payment, whether it is easy or not, *seems easy*. One frequently hears the statement, "We just do not miss the \$10 each month," which means the satisfaction of possession outweighs the dissatisfaction of enforced monthly payment. In all probability such a family has resources that enable it to carry this credit load. But what about the families that are "loaded to the limit" or the families with so few resources that credit is almost impossible to get? Such families are the prey of

dealers whose business tactics are questionable ethically. They are the families that suffer from unsavory methods of repossession of goods, wage assignments, bad contracts and exorbitant interest rates, and the ones that need protection through socially adequate regulation of consumer credit.

The family that plans to use installment credit will find it of value to consider the following sets of questions before entering into an installment credit agreement. The first set, from the *Consumers' Guide*, helps to establish the actual cost and obligations of the credit.

"What will the credit actually cost me in money? What rate of interest is charged?

"Are all the dollars and cents figures on the contract correct?

"Are there any blank spaces to be filled in later?

"What are the insurance charges, if any? What insurance is actually provided?

"To whom will I owe the payments?

"What penalty charges may be imposed for late payment? Are there any other extra charges?

"Do I have a right to fair notice before the merchandise can be repossessed? What repossession charges may be collected?

"What security have I given? Does the security include other merchandise previously bought? Does it include a wage assignment?

"What legal safeguards and guarantees have I waived?

"Do terms in fine print commit one to additional obligations?

"Is there provision for a fair refund in carrying charges if early payment is made?"¹⁰

The second set of questions is concerned with the finances of the individual family, as they determine for that family the advantage or disadvantage of installment buying.

Is the use of our total income planned well enough to include adding a monthly payment obligation? Do we really live on a planned economy?

¹⁰ "Look Before You Sign," *Consumers' Guide*, Vol. V, No. 18 (February 27, 1939), p. 13.

Is our income regular enough to allow assuming a monthly payment obligation?

Is the purchase a durable good? Is not purchasing perishable goods on installment risky?

Since other living costs must go on, is the amount we are pledging to pay out of sane proportion to our ability to meet the obligation?

Can we make a relatively large down payment and pay the remainder off rapidly, since that is the cheapest way to buy on the installment method?

CREDIT UNIONS

Another source of credit for consumers, and one which is growing in importance, is the credit union which is both a saving and loan cooperative. Credit unions are usually, and most successfully, organized among a group of people of similar interests, who know each other and who work together. The loans are made only to group members and are made from the savings of the group members. Thus the credit union represents a pure type of cooperative enterprise.

Credit unions are under the regulation of federal and state laws, and some states provide a credit union commissioner who aids in organization of the unions and who inspects and enforces regulations set up by the laws of the state. As few as seven may organize a union, but forty or fifty are needed to provide sufficient capital to make operations really helpful to members.

The laws of organization usually provide that a member may own as many shares as personal financial conditions will allow, but each member may have only one vote. Some unions have a top limit to the amount of shares one person can own. Small loans up to \$50 are made to members with no collateral, on only the borrower's signature. For larger loans the borrower must have either collateral or cosigners. The advantage of the lending aspect of the union for the member is the relatively low interest rate. The rate is rarely above 1 per cent per month on the actual unpaid balance of the loan. The rate may go as low as $\frac{1}{2}$ of 1 per cent per month. No fees are permitted except fines for delinquency in meeting payments. At the usual 1 per cent per month the interest rate is 12 per cent per year.

Costs can be low because the management of the credit union is in the hands of its members. The treasurer is usually the only bonded officer; the remainder of the service is given by the members, acting as officials and as committee members, and a supervising committee of three members. Often the office space and clerical service are donated by a member. There is little cost of investigation of borrowers since the membership is a rather closely knit group. Thus the credit union is a thrift and lending agency for its members, for one must save something in order to be able to borrow from this source.

The federally chartered credit unions of the country have been exceedingly successful since their organization in 1936, with a very low rate of loss. "Federally chartered credit unions have loaned eighty-two and one-half million dollars, with bad debt losses of less than thirty-four thousand dollars—a loss rate of four one-hundredths of one per cent of the amount loaned, that is, four cents lost on each one hundred dollars loaned."¹¹

Although the credit unions serve a relatively small part of the people with credit needs, they are an answer to the problems of many who have little or no property but high character qualifications for credit.

INDUSTRIAL BANKS

The industrial bank, of which the Morris Plan Bank is the best known, is another source of credit for consumers and small businesses. All industrial and Morris Plan banks require co-signers for loans granted, and make the cosigner as responsible as the borrower for repayment of the loan. Occasionally loans are made on chattel mortgages. The cost of the loan is higher than the commercial rate, but usually not so high as the cost of installment buying. The rate is more nearly comparable to the rate charged by the personal-loan department of commercial banks.

The rate of interest usually averages about 12 to 18 per cent per year or 1 to 1½ per cent per month. Rates are not so low as they first sound, since the usual "6 to 7 per cent" has other costs

¹¹ "Selling Credit to Consumers," *Consumers' Guide*, Vol. V, No. 16 (January 30, 1939), p. 13.

added. Literally, the 6 to 7 per cent refers to the discount rate and the person who borrows \$100 "at 6 per cent" would receive only \$94 because the 6 per cent discount is deducted in advance. There would then be a 1 or 2 per cent commission deducted as a charge by the bank for placing the loan, which further reduces the sum to \$92. The loan is usually repaid in small installments of a given amount per week, say \$2, but instead of repaying the \$92, the face value of the note, or \$100, is repaid. The rate now amounts to 16 per cent and may be higher, depending on whether the borrower pays on the decreasing unpaid balance or on the full amount of the loan.

The industrial banks check closely on delinquencies and exact fees for delayed payments, often putting legal machinery of collection into operation if payments are overdue even a short time.

SMALL-LOAN OR PERSONAL-FINANCE COMPANIES

Still another source of consumer credit is the small-loan or personal-finance company, which in volume of loans represents one of the largest single sources of consumer credit. The term "small" is applied because the loan is usually limited in size. The interest rate is high, but quoted at 2, $2\frac{1}{2}$, or 3 per cent. To the uninformed this sounds low. The true meaning of the quotation is 2, $2\frac{1}{2}$, or 3 per cent *per month*, which makes a rate of 24 to 42 per cent per year if payment is on the total sum borrowed, but slightly lower if on the unpaid balance.

The small-loan companies operate in most urban centers and lend money to anybody above the relief level. They are characterized by their vigorous advertising methods, which usually include the sending of quantities of material to address lists of salaried persons. Twenty-seven states operate under uniform small-loan laws patterned after the Russell Sage Uniform Small-Loan Law, leaving twenty-one states, or 48 per cent, not operating under the reform legislation. The uniform law restricts the loan to \$300 and the interest rate from $3\frac{1}{2}$ down to 2 per cent per month on the unpaid balance. Although the upper limit is \$300, the majority of loans are less than \$100. In states where there are no restrictive laws or where laws are too restrictive,

this type of credit agency lends itself to many abuses in business ethics, in advertising, and in business methods.¹²

The intelligent user of credit who makes a thorough investigation of available agencies in case a loan must be placed will not only obtain information regarding costs but will also investigate the habits and practices of the loan company.

RANKING OF CONSUMER CREDIT SOURCES

A general ranking of credit agencies according to the rates of consumer credit will be of help for those families who find it wise and necessary to seek credit services. As stated earlier, security, ability to pay, and character are the surest bases of credit. Rates vary from one section of the country to another, but a summary of rates gives a comparative picture of what to expect in the rates of various sources. The following rating has been made by the Public Finance Committee, *Pamphlet 5*:

RATES ON CONSUMER CREDIT¹³

	<i>Common Charge</i>	<i>Range of Charge</i>
Savings bank account	6%	5- 6%
Building and loan association	6	6- 12
Insurance policy	6	6- 12
Credit union	12	8- 18
Personal-loan department of bank	..	7- 23
Remedial loan association (pledges)	..	10- 63
Remedial loan association (chattel mortgage and co-maker notes)	..	15- 30
Industrial bank	17	12- 34
Pawnshop	36	30- 42
Personal-finance company	36	30- 42
Illegal lender	240	120-480
Installment sellers and finance company	..	-500

Good business practice in family finance requires a thorough analysis of the best method of meeting emergencies, accumulated indebtedness, or acquisition of consumer goods. If these cannot be met from cash, savings, or sale of assets, it behooves the family who must have credit for such purposes to make comparisons

¹² "Selling Credit to Consumers," *Consumers' Guide*, Vol. V, No. 16 (January 30, 1939), pp. 10-12.

¹³ "Credit for Consumers," *Pamphlet 5*, p. 22.

of all available types of consumer credit, and to choose the source which offers the best buy, that is, the cheapest rate, and at the same time carries the least hazard of extras, fees, penalties, wage or salary assignments, or possibilities of repossession of the goods by sellers. Whether the loan is large or small the responsibility for investigating the full range of sources of credit lies with each family that aspires to good business procedure in its finance management.

CREDIT INSTRUMENTS THE FAMILY SHOULD UNDERSTAND

A credit instrument is a legal document drawn up by the lender and signed by the borrower, which indicates the terms of contract of the credit transaction. Since some instrument is signed for every transaction which is legal, regardless of the source of credit, the typical ones should be understood. Five credit instruments commonly enter into personal and family finance: the promissory note, the collateral note, the installment sales contract, the bond, and the mortgage. All are easy to understand, with the possible exception of the installment sales contract.

THE PROMISSORY NOTE

The promissory note is the credit instrument used in a loan secured by signatures only. It represents an unconditional promise to pay to a certain individual or organization, a certain amount of money (or its equivalent), on a certain date, at a specified rate of interest. The promissory note may be secured by one name, the borrower only; or by two or three names, the borrower and one or two cosigners. All signers are equally liable under law for the full value of the note. In case the borrower is unable to pay, each or either of the cosigners is responsible for payment and can be forced to pay within the limits of his salable assets. The promissory note is ordinarily a sixty- or ninety-day note and can be renewed as often as the lender is willing to allow renewal.

THE COLLATERAL NOTE

The collateral note is the credit instrument used in making a loan which is backed by tangible asset as security for payment.

Such a note is a promise to pay a certain person or organization a given sum of money, by a given date, at a given rate of interest, and is signed by the borrower. The collateral is listed on the note with a statement that, if the note is not paid by the date specified, the lender has the legal right to sell the collateral at the best price he can secure at the time, for the purpose of paying the loan. A sum large enough to cover the cost of sale of the security will be recorded on the note. The note will also state that this sum together with the face value of the note will be deducted to liquidate the loan, and the remainder of the amount received from sale of the security will be returned to the borrower. Such a note requires only the signature of the borrower.

If the amount of the loan is a small fraction or is a reasonable proportion of the value of the collateral, the risk is lessened and the interest rate charged the borrower should be lower than for a one-, two-, or three-name promissory note. This note may be renewed as often as the lender is willing.

INSTALLMENT SALES CONTRACT

The installment sales contract is a potent credit instrument, but it is difficult to make a blanket statement covering its contents. The central feature of an installment agreement is that, during the term of the agreement, the seller retains possession of the article, while the buyer has the use of it. The seller also may have control over the buyer's source of income through a conditional sales contract, a chattel mortgage, or a wage assignment.¹⁴ The *Consumers' Guide* says this about installment contracts: "Contracts are drawn by sellers' attorneys. Buyers usually are in complete ignorance of what legal right they do have. And buyers, especially of automobiles who think they drive a shrewd bargain on trade-in price, often accept other terms that victimize them without a second glance at the contract. That is why consumers have sometimes found hard times come with easy payment."¹⁵

The family that makes a purchase involving the outlay of an appreciable amount of money would do well to have a contract

¹⁴ See M. Reid, *Consumers and the Market*, Chapter 17.

¹⁵ "Look Before You Sign," *Consumers' Guide*, p. 10.

lawyer read the contract before they sign it. The extra cost involved may save much stress and worry at a later date and may pay for itself many times over.

THE BOND AS A CREDIT INSTRUMENT

A bond, although entering into family finance as an investment, is nevertheless a credit instrument. A bond is literally a loan to an established enterprise, industry, or to the government, and as such it registers a credit transaction. It is secured by the pledge of real property of the enterprise. The engraved face of the bond registers its face value or denomination. Further details recorded are the date of maturity of the bond, the interest rate, and time of payment of interest. Some bonds have coupons attached for redeeming interest on the proper payment date. The coupons are clipped and claimed by the company issuing the bond.

REAL ESTATE AND CHATTEL MORTGAGES

Mortgages are of two kinds, real estate and chattel; both are credit instruments recording loan transactions. The real estate mortgage is a loan secured by a pledge of real property, and as such it records full listing of property used as security, the amount of the loan, the interest rate and date the interest is due, and the duration and maturity date of the mortgage. The real estate mortgage is secured by the deed to the property deposited with the mortgage in the folio of the lender. A discussion of the three types of real estate mortgages is found under economics of home ownership, page 298.

The chattel mortgage is a loan secured by a pledge of movable or immovable property other than real estate, sometimes spoken of as "goods and effects." The mortgage records full information of the chattels pledged, the amount of the loan, interest rate, maturity date, and any other data that are pertinent to the individual transaction.

CHAPTER XV

SAVING AND INVESTMENT IN FAMILY FINANCE

No one part of a family's financing is inseparable from another; the financing itself, as we have seen, is a part of the large pattern of individual or family living. Analysis of one finance problem may build an approach to the solution of another, but any analysis to be sound must be made with all other parts of the problem in view. This is particularly true in considering the need for putting aside some of the family funds as savings and the problems of investing these funds.

SAVINGS

Savings do not accumulate automatically. For most persons and for most families, savings are the result of careful planning. The motivation may be a desire for a good, a future accomplishment, or a fear of future deprivation.

For a family, saving has meaning only when its purpose is well planned and understood by all. Savings for savings' sake is futile. Deprivation in the present because of an excessive fear of the future's unknown is unsound. The family should know why they are saving in order that they may establish a regular plan for saving. The savings program will want to be one that fits the family's needs and can be carried out without undue hardship. An overly ambitious or poorly planned program of savings may easily cause so much tension and discouragement that the entire program will be abandoned.

For the person who has strong moral suasion, a decision to place a certain amount regularly into a savings account until the sum is large enough to invest is all that is needed. For most persons some method of helping to establish a savings habit is necessary. For these persons, the contracting for some type of investment which can be purchased in small and regular payment units is a more certain method of ensuring the establish-

ment of a savings habit. Such contracted purchases may include credit union shares, building and loan shares, United States savings bonds, certain types of insurance policies, or other forms.

SAVINGS BY AMERICAN FAMILIES AND INDIVIDUALS

The information on the use of income by families and individuals in the United States in 1935-1936 presented in Chapter XVII, includes both expenditure and savings. (See Figures 20 and 22 on pages 260 and 263.) Not until the income reached the \$1,450 to \$2,000 level did these families save anything. Below \$1,000 they either used past savings, borrowed, or were subsidized. On the other hand, as income increased savings increased consistently.

Families living on \$780 and less had no savings, but went into debt on an average of \$92, and those living on \$780 to \$1,450 went into debt on an average of \$19 per family.¹ Those families that had incomes of \$1,450 to \$2,000 saved on the average \$77, or 4.6 per cent of their incomes; those that received \$2,000 to \$3,000 saved on the average \$241, or 10.1 per cent of their incomes; and those that received \$3,000 to \$5,000 saved \$647, or 17.7 per cent. The savings of single men and women varied from \$10 to \$387, or 0.9 per cent to 10.6 per cent of their incomes.

INVESTING FAMILY SAVINGS

After a family has decided upon a savings plan the decision on how to invest wisely must be made. Jordan says that it is a constant source of wonder to people who know investment practices to observe the carelessness with which many persons buy securities. He questions whether many people who buy securities understand the nature of their commitments.² Unquestionably, the investment experience of many families would be less unfortunate if people would study carefully the quality of the investments they make.

¹ National Resources Committee Report, *Consumer Expenditures in the United States, 1938*, p. 77.

² David F. Jordan, *Managing Personal Finance*, New York: Prentice-Hall, Inc., 1937, p. 141.

WHAT IS A FAMILY INVESTMENT?

Investing funds is the process of placing them in a more or less permanent form with the expectation of assuring the security of principal, and of receiving a regular and predictable return on principal. This return is the income yield from the investment. Another process of placing funds is that known as speculation. In speculation the major emphasis is upon profits from appreciation rather than upon security of principal and a moderate and certain return. Speculation, therefore, may risk the principal for the possibility of obtaining a large profit, for the principal may depreciate instead of appreciate. Speculation thus jeopardizes the security needed for family funds.³

The line of demarcation between investment and speculation is not a clear-cut one. Speculation often has some elements of a conservative investment, and in every investment, because of the frailty of human judgment, there is some uncertainty or speculation. Nevertheless, when deciding upon the disposition of family surplus funds to be used in long-time family plans, the speculative elements will need to be reduced as much as possible and the investment elements emphasized.

Persons or families with only a small amount to invest will do well to provide themselves with adequate life insurance or small-denomination savings bonds⁴ when they are available, establish a savings account for emergencies, and omit the thought of purchase of securities which may be speculative in nature.

TYPES OF INVESTMENTS AVAILABLE FOR FAMILY CAPITAL FUNDS

Two general types of investment are available for family surpluses: (1) ownership and (2) creditor. In ownership the purchaser receives title or legal right to property which is registered in his name, and carries the responsibilities imposed by law for this privilege. In creditor investments a loan is secured by a legal document called a credit instrument (page 222). Even though the investor buys a bond, the legal transaction is a loan

³ *Ibid.*, p. 142.

⁴ Table of Redemption Values of United States Savings Bonds, Appendix.

of a given sum to an enterprise with the promise of repayment of the principal at a given date and payment of interest for the use of the sum until the date of payment.

The usual forms of ownership investment for families are: real estate (residential property, land, business houses, apartments, factory buildings); stocks or shares in corporate enterprises; livestock; private business enterprises; and life-insurance policies. The usual creditor investments are: bonds (government or corporate); real estate mortgages; notes receivable; and certain kinds of contracts.

CORPORATE SECURITIES

Any one of three forms of securities may be purchased from a corporate enterprise, thereby making the purchaser part-owner, creditor, or both part-owner and creditor. Preferred and common stock represent the extent of the purchaser's share in the company; the purchase of bonds makes him a creditor of the company. The preferred stock carries a definite dividend rate, and, no matter what the company may earn, the holder of preferred stock receives no more than the specified rate of return. Cumulative preferred stock carries a definite dividend rate that is retroactive; that is, if no dividends are paid for a year or more, when payment is resumed cumulative preferred stock must be paid first for the years in arrears. The holder of common stock carries no specified dividend rate, and the owner's share in the profits is determined by the board of directors. It is dependent upon the amount of surplus earnings after indebtedness has been met and preferred dividends have been paid.

The bonds in any given company are the best investment among its commitments, since bonds are indebtedness and must be paid before owners share in the profits. The preferred stock is the next ranking security since it carries a definite rate of yield and so gives greater certainty of return. The common stock is the least secure investment for it is the last to share in the earnings. However, common stocks in some companies may be a better investment than bonds in another. Only careful in-

vestigation can reveal comparative value of investments in different companies.

TESTS OF AN INVESTMENT FOR A FAMILY

In evaluating an investment, a family will want to consider (1) the safety of the principal, (2) the income yield, (3) ease with which the security can be sold, and (4) the amount of management and care required.

SAFETY OF PRINCIPAL

The most important feature of an investment for a family is the safety of the principal. Will the family be able to recover the amount invested? The first step in determining the safety of an investment is to ascertain the nature of the business enterprise. The many individuals who put their savings into the famous Drake Estate in 1935-1936 could have saved themselves from inevitable loss had they used even a little caution in investigating the nature of this enterprise.

If the enterprise is that of a governmental body, national, state, or municipal, the nature of the bond issue will be the major consideration. The buyer of the securities will want to be assured that the purpose of the issue is both commendable in public estimation and congenial to personal policies and beliefs.

If the enterprise is private or corporate, the investor in addition to learning the nature of the business should investigate its history of operation, its policies, and its practices at different stages of the business cycle. The average family should avoid investing in an enterprise in the early stages of development, or one that has passed the peak of its business development.⁵

Securities that show rapid or wide fluctuation in value in relatively short periods of time are not sufficiently secure to guarantee safety of principal for the investment of family capital funds.

Collateral value is another important quality of any securities in which family funds are to be invested. Collateral value refers to the value of a security when used as a pledge to assure re-

⁵ Jordan, *Managing Personal Finances*, p. 146.

payment of a loan. This value depends on the safety and stability of the principal. It is important that family investments have high collateral value since it is this quality that determines the amount of loan for which they will be accepted as security and the terms on which the loan can be obtained. A somewhat larger loan could be secured with a \$1,000 government bond, for example, than with a certificate of highly fluctuating common stock with like value at the time of the loan.

Legality is also a quality determining the safety of an investment. The investor must make certain that all points of the law have been fulfilled, especially in creditor types of investments—bonds, mortgages, and contracts—and also in corporate business, because states vary in their laws of incorporation. In the purchase of a security from a local enterprise, the legality of the business organization is particularly important.

INCOME YIELD

The certainty and the regularity of the income yield are of great importance to investors who wish to build up a capital fund and to live on the yield from the fund. The return from certain types of securities is more predictable than that from others. For example, the interest from corporate bonds must be paid regularly because of danger of financial disaster to the corporation issuing it, whereas dividends on corporate shares can be passed, that is, the board of directors of the corporation may, at any time, vote not to pay them.

The rate of return on an investment is usually an index to safety of principal. Certain kinds of investments pay a uniform rate of return; other kinds fluctuate widely from year to year. At certain periods of business activity, demand for capital is greater than at others, and interest rates of creditor investments and dividends of stocks also vary. During periods of reduced business activity, when demand for capital is light and money is easy to borrow, interest rates may be low and dividends may be passed entirely for a period of time. This variation of the money market is well illustrated by comparing the return on securities in the middle and late 1920's and the middle 1930's.

United States government bonds represent the safest invest-

ment for the American family. Their rate of yield is relatively low, $2\frac{1}{2}$ to 4 per cent, rarely higher than 4 per cent. Other investments having much higher yields may also be safe, but the investor should realize that a high average return may in time result in loss. Many investors use the current rate of return on long-term United States government Treasury bonds as a basis for judging the excellence of their investments; they assume that any security yielding more than twice as much as Treasury bonds involves too much risk to be considered good. Other, more conservative, investors consider that one and one-half times the Treasury rate is the maximum yield to anticipate from a good investment.⁶

EASE OF SALE

The marketability of an investment, or the ease of converting a security into ready cash, should be considered in planning an investment program for the family. Family conditions change, and it may become necessary to use a part or all of the capital funds to meet the changed conditions. To be ready to meet the needs brought about through change, part of the family's investments should be in a form easily convertible into cash.

Long-time investments, such as farm lands or a house for the family, may be difficult to dispose of at a price approaching 100 per cent on the dollar invested, since real estate is not always readily marketable. Government bonds, on the other hand, are more highly fluid and can be easily sold for their full value in normal times.

All creditor investments carry a date of maturity which is the day that payment of the security is due. Some kinds of securities run for longer periods than others. Bonds, for example, usually run for longer terms than mortgages. Some bonds mature in 10 or 20 years, whereas mortgages commonly run for 3 to 6 years. Usually the nearer the date of maturity the more readily salable is the security.

The date at which an investment is to mature may be important for a family that plans to have funds available for a

⁶ *Ibid.*, pp. 149-150.

known future need. For example, the family that wishes to plan and invest funds so as to have them available for a college education for a child may purchase a security that will mature near the time the child will be ready for college.

MANAGEMENT AND CARE REQUIRED

In choosing an investment for family funds, the amount of knowledge required for the management of the investment and the oversight necessary to ensure its success must be considered. A family may be influenced to make an investment that results in a loss simply because they did not foresee the problems involved in the management and care of the property acquired. For example, a college professor in a northern university purchased a part interest in a Mississippi pecan orchard. Fifteen hundred miles from his investment, the professor was unable to direct the management of the orchard effectively even though he had the necessary knowledge of orchard operation. Because of poor management, his losses were heavy.

Family funds accumulated through success in one type of business may be lost when invested in a new business which the purchaser expects, without special knowledge of its management problems, to operate successfully. For example, a farmer may sell his farm, invest in an unfamiliar business, and fail in operating it because of lack of experience and knowledge.

INFORMATION ABOUT INVESTMENT SECURITIES

In deciding upon the investing of funds in industrial securities by either a family or an individual, care should be taken to investigate *each* phase of the elements of a good investment before a commitment is made. Securing adequate information about these securities may prove to be a real problem for the investor. A number of recognized publications giving useful information about major industrial securities are available to the prospective buyer. Usually the local banker can furnish information about these publications. The bank will either subscribe for one or more of them or will have access to them through a correspondent city bank, and thus can furnish the

desired information. Or, in a large town or city, the library may receive the publications. Only information about major industrial enterprises operating on a national scale is included. Facts about small local business enterprises will need to be secured from local sources.

The publications in the following list are standard sources of information about investment securities:

Moody's Stock Survey } Published by Moody's Investor's Service,
Moody's Bond Survey } New York.
Standard Statistics, Inc., New York.
Poor's Corporation Bond Guide, Poor's Publishing Co., New York.
Fitch Stock Record, Fitch Publishing Co., Inc., New York.

TRUST FUNDS FOR FAMILIES

A trust provides a means of conserving funds or properties by transferring the management and care to a well-qualified administrator, either a person or a financial organization. It is a legal arrangement whereby the funds or properties are placed in the safe keeping of a disinterested party, called a trustee, and the returns are paid to another party, called the beneficiary. The object of the trust fund is to supply more able management of properties than the person who is destined to receive the benefits is qualified to give. Such an arrangement assures the creator of the trust that the person or persons for whom it is created will be more adequately provided for than by an outright bequest of the properties.

In creating a trust, the principal value of the fund remains intact, provided that no disastrous change in values occurs, and the beneficiary receives the income from the invested funds. The creator of the trust may specify the amount of income the beneficiary is to receive, the term of years he wishes the trust to remain in force, and the disposition of the properties making up the trust at the end of the term.

The establishment of a trust fund is a practical method for ensuring financial care of dependents and in family financing is frequently used by a parent for a child or children, or by a husband for a wife. It is also used by people of wealth as a means

of endowing a worthy cause, such as an educational project or institution.

The amount placed in trust may be small or large. Since 1930 the idea of the trust fund has grown more popular among people of moderate income.⁷ Before that time it was a device used largely by the well-to-do for safeguarding and conserving family fortunes.

The management of a trust fund may be carried by a person or by a local bank or by a company organized primarily for handling such business. Usually the managing agency charges a retaining fee for its services.

WILLS AND ADMINISTRATION OF ESTATES

A will properly drawn up greatly simplifies the distribution of an estate. When no will is made estates must be settled and distributed according to the laws of descent and distribution of the state in which the individual has lived and owned property.

MAKING A WILL

Anyone of legal age and sound mind has the privilege of making a will and leaving his property to one or more individuals. In most states the law provides that any person, male or female, eighteen years old or over, may make a will of personal property, and any individual twenty-one years old or over may make a will of real property.⁸

A will is a simple declaration of:⁹

Who is to receive the property.

At what time after death it is to be received.

In what proportions the property is to be divided.

Who shall settle the estate.

Under what particular conditions it is to be handled.

A person may make his own will but he must do the signing and declare it to be his will in the presence of two or more wit-

⁷ *Ibid.*, p. 290.

⁸ David F. Owens, *Controlling Your Personal Finances*, New York: Whittlesey House, McGraw-Hill Book Company, Inc., 1937, p. 270.

⁹ Adapted. *Ibid.*, p. 270.

nesses, who also must sign the paper as witnesses in the presence of the maker of the will. If a considerable amount of property is to be disposed of, or if complex situations are involved, it is advisable for the maker of the will to seek the advice of a competent lawyer.

Laws of the state regarding descent, distribution, and administration of property may be ascertained from a lawyer. If the law will divide and settle the estate as the owner of the property wants it done a will is not necessary. This does not often happen. If the owner wishes to distribute his property in a manner different from that established by the state laws of descent, then a will should be drawn up.

The individual who dies with a will ordinarily names someone, known as an executor, or executrix if the person is a woman, to carry out the terms of his will. The person who dies without a will leaves his property to be settled by an administrator appointed by the court.¹⁰

In this case the surviving husband or wife receives a dower or life estate of one-third of all properties which the deceased has owned during marriage. Dower rights are not defeated by a will. The laws for distribution of property when no will is left are based on whether a man is married or single and whether he has one or more children. In the event that there is no immediate family, the closest relatives are next in line of descent.¹¹ A will removes many causes of family jealousies and disputes which are likely to arise if no provisions for the survivors are made.

WILLS OF HUSBAND AND WIFE

It is not unusual for the husband to make a will appointing the wife sole devisee and executrix and for the wife to make a will designating the husband as sole devisee and executor.¹² When the wife has earned money before or after marriage or when she has received bequests of personal property or money, it is advisable for her to make a will as well as her husband.

¹⁰ *Ibid.*, pp. 271-272.

¹¹ *Ibid.*, pp. 270-271.

¹² Jordan, *Managing Personal Finances*, p. 387.

JOINT TENANCY

If a piece of property is held in joint tenancy by husband and wife, at the death of either party the property belongs to the other party without probate or court proceedings. Property so held cannot be diverted by either party by will.¹³

¹³ C. W. Taber, *The Business of the Household*, Philadelphia: J. B. Lippincott Company, 1938, p. 406.

CHAPTER XVI

LIFE INSURANCE IN FAMILY FINANCE

PURPOSE OF LIFE INSURANCE

The purpose of American life insurance is to provide protection against the needs caused by old age, disability, or death. The real service of life insurance is to furnish some form of estate for the protection of dependents in the case of the death of the insured. Life insurance transfers the burden of risk from one person to a business enterprise organized to carry the load. It is made possible because a large number of individuals wish to shift that burden. Through the sale of insurance policies, life-insurance companies bring these individuals into a group and the group then shares the losses of the individual.

For either the family, or the single individual, life insurance provides a method of purchasing an estate, living or retirement (page 164), through year-by-year payments contracted at a given rate. Although the savings of the majority of earners are not large enough to purchase adequate protection, they will purchase partial protection.

AMERICAN EXPERIENCE TABLE OF MORTALITY

Nearly a century ago the so-called "American Experience Table of Mortality" was derived from statistical analysis of mortality experience at that time. This table is still used by life-insurance companies for computing the insurance rates which are charged at various ages. More recent records of large insurance companies indicate that actual death rates are considerably lower than those indicated in Table XXVIII, page 238. The use of the conservative estimates, however, enables insurance companies to make substantial refunds to policyholders in the form of dividends.¹

¹ Jordan, *Managing Personal Finances*, p. 255.

TABLE XXVIII
AMERICAN EXPERIENCE TABLE OF MORTALITY
INCLUDING EXPECTATION OF LIFE AT EACH AGE

Age	Number Living	Deaths Each Year	Expectation of Life, years	Age	Number Living	Deaths Each Year	Expectation of Life, years
10	100,000	749	48.72	53	66,797	1,633	18.79
11	99,251	752	48.09	54	65,706	1,740	18.09
12	98,505	754	47.45	55	64,563	1,857	17.40
13	97,762	757	46.80	56	63,364	1,989	16.72
14	97,022	760	46.16	57	62,104	2,134	16.05
15	96,285	763	45.51	59	59,385	2,472	15.39
16	95,550	766	44.85	60	57,917	2,669	14.74
17	94,818	769	44.19	61	56,371	2,888	14.10
18	94,089	773	43.53	62	54,743	3,129	13.47
19	93,362	777	42.87	63	53,030	3,394	12.26
20	92,637	781	42.20	64	51,230	3,687	11.67
21	91,914	786	41.53				
22	91,192	791	40.85	65	49,341	4,013	11.10
23	90,471	796	40.17	66	47,361	4,371	10.54
24	89,751	801	39.49	67	45,291	4,765	10.00
25	89,032	807	38.81	68	43,133	5,200	9.47
26	88,314	813	38.12		40,890	5,676	8.97
27	87,596	820	37.43	70	38,569	6,199	8.48
28	86,878	826	36.73	71	36,178	6,767	8.00
29	86,160	835	36.03	72	33,730	7,373	7.55
30	85,441	843	35.33	73	31,243	8,018	7.11
31	84,721	851	34.63		23,738	8,703	6.68
32	84,000	861	33.92	75	26,237	9,437	6.27
33	83,277	872	33.21	76	23,761	10,231	5.88
34	82,551	883	32.50	77	21,330	11,106	5.49
35	81,822	895	31.78	78	18,961	12,083	5.11
36	81,090	909	31.07		16,670	13,173	4.75
37	80,353	923	30.35	80	14,474	14,447	4.39
38	79,611	941	29.63	81	12,383	15,861	4.05
39	78,862	959	28.90	82	10,491	17,430	3.71
40	78,106	979	28.18	83	8,603	19,156	3.39
41	77,341	1,001	27.45	84	6,955	21,136	3.08
42	76,567	1,025	26.72	85	5,485	23,555	2.77
43	75,782	1,052	25.99	86	4,193	26,568	2.47
44	74,985	1,083	25.27	87	3,079	30,392	2.18
45	74,173	1,116	24.54	88	2,146	34,669	1.91
46	73,345	1,156	23.81		1,402	39,586	1.66
47	72,497	1,200	23.08	90	847	45,455	1.42
48	71,627	1,251	22.35	91	492	53,247	1.19
49	70,731	1,311	21.63	92	216	63,426	0.98
50	69,804	1,378	20.91	93	79	73,418	0.80
51	68,842	1,454	20.20		21	85,714	0.64
52	67,841	1,539	19.49	95	3	100,000	0.50

CHOICE OF COMPANY

A life-insurance policy is a contract between a life-insurance company and the person insured. The full face value of the policy is to be paid at a definite time or upon the death of the insured. Such payment imposes a responsibility for accumulating large funds of money with which to pay the claims as they fall due. In carrying the responsibility for amassing these funds, called underwriting, a life-insurance company fulfills an important function to the public. Handling the accumulated funds—caring for the cash funds and investing reserves in order to have necessary funds available when contracts are due—is another important function.

Any one considering the purchase of life insurance will want to investigate the standing of the various prospective companies. He will first want to know what types of companies are represented in the group. Next he should know something of the size of the funds accumulated by each company, the age of the company, and the history of its operation. Also he will need to know something of the company's investment policies and the nature of its investment assets.

TYPES OF LIFE-INSURANCE COMPANIES

Life-insurance companies can be divided into three types, legal reserve, assessment, and fraternal.

LEGAL RESERVE COMPANIES

The legal reserve company is organized as a corporation under the laws of the state in which it originates and is required to maintain a reserve for the payment of its policies when due. The reserve is fixed by law. Each time a premium is paid by a policy-holder, a certain percentage is required by law to be allocated to a reserve. The summation of this reserve fund, and the interest it earns, create the cash or loan value of the policy from year to year.² The amount allocated to the reserve fund from each premium depends upon type of policy and rate, which has been calculated as indicated above from the basic mortality table.

² See cash or loan value table of three types of policies in Appendix.

Legal reserve companies are of two kinds, stock and mutual. These names refer to the method of conducting the business. The difference between these two kinds of legal reserve companies lies mainly in who shares in the benefits of the business. Mutual companies are owned by the policyholders and operated for their benefit, whereas the stock company is owned by the corporate stockholders and is operated primarily for the interest of the stockholders. The operating policy of certain stock companies, however, is a combination of the two methods. Through the issuance of participating policies and the payment of dividends, these companies permit the policyholders to share in the earnings of the company.

ASSESSMENT COMPANIES

The assessment company makes no provision for a reserve. It operates on the theory that a few die from a group each year and the need for the funds to be paid beneficiaries of deceased members will be met from current premiums. Annual premiums are not guaranteed but are computed each year to provide whatever funds may be needed to pay the benefits the company obligated itself to pay. The surviving members are assessed the amount of such premiums.

Assessment companies were established in this country in an effort to provide life insurance at a low cost. Low costs, however, are obtained only when the preponderance of a society's members are young. The greater the average age of the group, the more frequent the deaths, and the higher the rates of assessments. The assessment company does not usually allow a satisfactory life-insurance program for a family, since its rates are low during the period when the insured has higher earning power, and builds up to a very heavy load during a time when earning power is likely to be decreased or does not exist.⁸

Assessment companies do not operate upon the basis of mortality experience data, and none of the efforts to devise a plan to make equal assessments for all ages in the society have been based upon statistical analysis of experience. The result is that, as the importance of security has grown and developed in the

⁸ John H. Magee, *Life Insurance: Chicago, Business Publications Inc., 1939*, p. 91.

history of life-insurance business, the assessment company has become less and less important.

FRATERNAL COMPANIES

Fraternal insurance, as the term implies, is that offered by the fraternal organization to its membership. Until recently this type of insurance was not regulated by state insurance laws. This lack of regulation has resulted in certain difficulties and inadequacies.

Fraternal insurance dates back to the development of the guilds, and prior to that in England to older fraternal organizations called friendly societies.⁴ These were transplanted to the United States, and until the turn of the century fraternal insurance was based quite largely on the assessment principle rather than on a legal reserve.

More recently the trend in fraternal insurance has been to place it on an actuarial basis. This has come about both through legal action and voluntarily. Today most reputable fraternal groups operate upon a legal reserve base, and the contracts may differ little from those offered by the life-insurance companies.

In those states where a reserve is not required by law and where fraternal insurance does not operate under standard requirements, care should be taken to investigate thoroughly the history and operation practice of any fraternal company from which one contemplates buying insurance. In some states the laws which apply to fraternal organizations have been so drawn as to make it possible for organizations purporting to be life-insurance companies to qualify as fraternal organizations and operate without state license. These unlicensed companies frequently offer the public cheap insurance contracts and thus prey upon the uninformed. Clauses are often inserted in the policies sold by these companies that reduce the benefits far below those expected and in many cases make collection of benefits difficult or impossible.⁵ Insurance sold at a price far below that established as fair and sound by reputable insurance com-

⁴ *Ibid.*, p. 92.

⁵ *Ibid.*, p. 93.

panies operating under the supervision of adequate state laws is usually worthless.

HISTORY OF OPERATION AND ACCUMULATED FUNDS

The tests used in choosing an investment should also be applied in choosing the company from which to buy life insurance.

TYPICAL ASSETS OF A LARGE LIFE-INSURANCE COMPANY IN 1940

Assets	Dec. 31, 1940	Percentage of Total Assets	
		1940	1939
Cash*.....	\$ 285,508,534	11.13	6.94
Bonds			
U. S. government obligations†.....	222,619,036	8.68	11.17
Public utility bonds.....	475,078,157	18.53	19.00
Railroad bonds†.....	410,654,430	16.01	14.73
Railroad equipment obligations.....	46,542,585	1.82	1.89
Industrial bonds.....	259,887,483	10.13	11.04
Other bonds†.....	60,476,866	2.36	1.53
(In accordance with requirements of law all bonds not subject to amortization are valued at market quotations as of December 31, 1940, furnished by the National Association of Insurance Commissioners, and other bonds are stated at their amortized values.)			
Stocks			
Preferred and guaranteed.....	48,560,059	1.89	2.20
Common stocks.....	308,103	.01	.03
(All stocks are shown at market value.)			
Mortgages			
City first mortgages.....	261,652,030	10.20	9.61
Farm first mortgages.....	66,300,122	2.59	2.93
(Including \$1,198,051 foreclosed mortgages subject to redemption.)			
Real estate			
City properties.....	77,011,099	3.00	3.40
Farm properties.....	64,361,583	2.51	2.82
Home and branch office buildings.....	13,330,392	.52	.62
(All real estate is shown at cost, less depreciation and markdown.)			
Loans to policyholders.....	216,989,036	8.46	9.78
Other assets.....	55,186,665	2.16	2.31
(These include interest and rents due, premiums in process of collection and other small items.)			
Total admitted assets.....	\$2,564,466,180	100.00	100.00

* Including time and fixed deposits of \$223,414.

† Including \$5,913,944 on deposit with public authorities.

One important test which applies particularly to life insurance is that the company shall have an established record of excellence in the operation of its business and a history of shared earnings. Information about the operation practices of a company, together with the size of its accumulated funds, can be obtained from the National Underwriters publications or from soliciting agents. Upon a summary of such data the purchaser can judge the soundness of the company.

Note the large percentage of holdings in bonds and the small proportion in speculative securities in this company's list of assets on page 242.

CHOICE OF AGENT

The importance of the soliciting agent in the chain of contacts between the life-insurance company and the insured is often overlooked. The agent is the insured's source of information about insurance; he is the person from whom service is received during the period the insurance is in force and with whom all arrangements are made. The choice of that person from the standpoint of the insured is indeed important.

The agent who is most helpful to the buyer is one who comes to his client with a diagnostic approach. Such an agent views his clients' financial problems much as a physician views his patients' health problems. He will not push the client into a purchase which is unwise. He will not urge the client to make the purchase until all considerations have been thoroughly weighed and settled upon.

Purchasers who make it a rule never to sign a contract for insurance on the day the agent is interviewed are less likely to regret their purchases, for they have time for an objective appraisal of all the factors involved and are not so likely to be overpersuaded by the agent to buy something they do not want.⁶

CHOICE OF INSURANCE POLICIES

What kind of life-insurance policy an individual or a family should choose depends upon the investment needs of the buyer

⁶ E. C. Harword, and Francis Bion, *Life Insurance from the Buyer's Point of View*, New York, 1939, p. 96.

and his ability to pay for these needs. Four types of policies commonly purchased by families provide at least one of the features in long-time finance planning, that is, protection or investment. These policies are whole life, usually called *ordinary life*; *limited payment*, such as the "20 pay life"; *endowment*; and *term* insurance. In addition to these, certain more elaborate forms of insurance are to be had, such as annuities of various kinds and a combination policy called the family income policy.

WHOLE OR ORDINARY LIFE POLICY

The ordinary life-insurance policy represents the least expensive permanent protection for the family offered by life-insurance companies. The contract carries the lowest cost premium of any permanent insurance, and the premiums are paid throughout the lifetime of the insured. The premiums remain the same throughout the term of the contract, and the policy is in force as long as it is not allowed to lapse.

The ordinary life policy premium rate is based upon the American Experience Table of Mortality and is completely endowed by the time the holder reaches 96 years of age. Accordingly, most companies pay the full face value of the policy to the insured should he live to reach 96. On the other hand, should death occur before that age, the beneficiary is paid the full face value of the policy.

The ordinary life policy becomes the basic policy in most insurance plans for a family or for anyone with dependents, because it gives the maximum protection for the smallest amount of money. Generally speaking, the ordinary life policy is the most widely sold and the least often changed or transferred.

LIMITED PAYMENT POLICY

The limited payment policy is a derivative of the ordinary life policy. They are both designed primarily for the protection of dependents, and full payment is made on the death of the insured. The limited pay life, however, carries a slightly higher premium because of the limited term of years of premium payment until the policy is paid up. The ordinary life premium payments continue throughout life. The limited pay life enables

the insured to carry the financial load during higher-earning years when presumably he is more able to meet its cost. The premium-paying period runs for 10, 15, 20, and 30 years, the most popular contract being the 20 pay life. The higher premium makes possible the limited feature of the policy with larger allocations to the reserve fund and thus an earlier self-endowment of the policy.

The choice between the ordinary life policy and the limited payment policy is usually made upon the basis of the money available for savings. If the amount is restricted, the ordinary life may be preferable since a given amount of money will buy the maximum protection. The advantage of ordinary life is twofold: one is that, when death occurs early, not many premiums have been made; the other is that with improvement in economic status an ordinary life policy can be converted into a more desirable type. If the amount of money is not an important factor, proper protection may be secured through the limited payment policy and arrangement can be made for the end of the term to coincide with some such event as the date at which the income earner retires from service, thus relieving the premium burden in later years, yet protecting the dependents.

ENDOWMENT INSURANCE

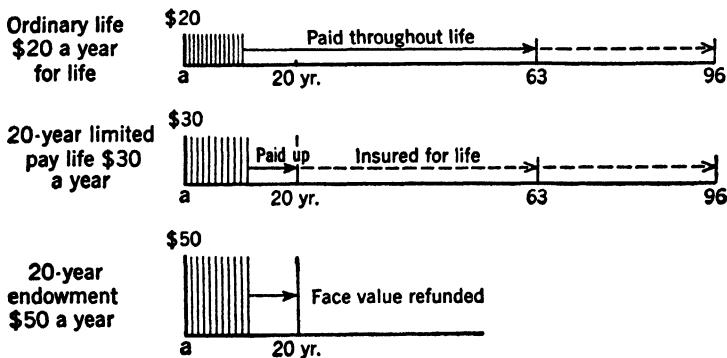
The endowment policy is a combination of a pure endowment, meaning a sum devised for use by the insured, and term insurance. With it the insured is protected for the full face value of the policy for the duration of the policy, and in the event of death this face value is paid to the beneficiary. Should the insured live to the end of the term of years covered by the policy, the face value is paid to him. Thus we find here both the protection and investment features. The term of years most popular with the endowment policy is 20 years, although 15-, 25-, or 30-year policies may be arranged. Obviously, the provisions of an endowment policy require larger premium payments than either ordinary life or limited payment insurance.

The endowment policy is useful if a particular future need such as a college education, care of an aged parent, or some other large demand requires liquid funds. The protective feature is

not so much a provision for the dependent immediately in the event of the death of the insured as it is a means of having a fund for carrying out the project for which plans have been made.

Endowments are sometimes purchased when only protection is needed. It would be far better for the buyer to use available money for the purchase of larger amounts of ordinary life, thus have larger funds for the dependents in the event of the death of the insured, or else pay less for the same amount of protection. Experience of insurance companies shows that endowments are more frequently collected by the insured than by the dependent.

The following diagrams present a comparison of costs of ordinary life, limited pay life, and endowment policies. All are calculated for a 23-year-old person and are for \$1,000. The line *ab* represents the life of the insured. Sixty-three is the age expectation for the 23-year-old person.



TERM INSURANCE

Term insurance provides protection to the dependents of the insured for a specified period and is classed as temporary protection only and not an investment. Term policies are issued for a period of years, and, if death occurs within the contracted time, the full face value of the policy is paid to the beneficiary. If death does not occur in the term of years, the insurer (the company) has no further obligation to the policyholder. Term insurance is the lowest-cost insurance an individual can obtain, usually amounting to about one-half the annual rate charged for an ordinary life policy. The low premium indicates the limited

coverage given by the policy. Term insurance is a contract used to obtain the maximum amount of protection for a temporary need; it appeals to those who cannot afford to carry as much ordinary life as they might desire in order to protect family security.

For example, if a family is buying its house on a cash and credit basis and the father wishes to be assured of the family's security through its home ownership, he can insure the indebtedness of the mortgage by purchasing a term policy to cover the value of the mortgage for the years of its extent. Term insurance gives him the cheapest protection that he can buy for this temporary need. The same method can be used by the farmer or small businessman to cover the value of the farm mortgage or business indebtedness.

Still another use of term insurance in family finance is to provide maximum protection for a family of children during their growing years. The father who cannot afford to carry ordinary life to cover the needs of the family adequately can carry part ordinary life and the remainder in the form of term insurance. During the term period he is able to secure twice the amount of protection for the same outlay of money. He assumes that at the end of the term the children can earn for themselves.

OTHER TYPES OF LIFE-INSURANCE POLICIES

A type of insurance contract entered into by those who have more to invest is the *annuity*. This contract is written in a variety of forms and may carry different specific names from company to company, such as *guaranteed investment contracts* or *pension bonds*. Annuity refers to a contract which provides that an income shall be paid to the person at specified times, as monthly, quarterly, semi-annually, or annually, in accordance with an agreement. The payments are made from a fund either deposited as a lump sum or built up by the insured.

Of the wide variety of annuities purchased today probably the most common contract for those who live on \$3,000 and less is the so-called deferred annuity. Under the deferred annuity contract the sum to be paid to the annuitant in the form of an income is deferred or paid later. The contract can be

purchased with a lump sum deposit, as \$1,000 or \$10,000, with a specified deferred income program agreement; or it can be purchased by yearly installments paid to the company for a given period of years. This contract calls for a repayment to the annuitant starting at a given age and date and progressing in a specified manner. For the salaried person, the annual deposit with a deferred income beginning at a stated age is a popular contract since it provides for a retirement estate which provides stated regular stipends.

The annuity is not, strictly speaking, life insurance since it does not carry protection and has no face value. In the event of the death of the annuitant the fund accumulated, or the fund plus an interest accumulation, is paid to the beneficiary. If the annuitant dies after he has started receiving the income, the beneficiary receives the residue of the fund.

The *family income plan policy* is another type of insurance based on the needs of the growing children in a family. It is a combination of ordinary life and decreasing term insurance. The policy is usually written to cover family needs in case of the disability or death of the father and is worked out to fit the needs of a particular family. The plan provides a higher income during the developmental years of the children and may be written so as to pay out the face amount in a still higher monthly income during years of increased need, as for a college education. It then reduces to a given base for the mother when the children are self-supporting, or she has the option of taking the residue of the face value of the policy in a lump sum if it has not been reduced by high income for some need as during the college years. If the fund has been reduced then she may still take the residue in a lump sum. The protection afforded in this type of insurance varies from company to company, and its costs vary with the needs of the family. The family income policy can be characterized as "custom-built" insurance to fit the needs of an individual family.

LIFE-INSURANCE ESTATES

Persons who wish to provide security for a family and are forced to do so from current income often turn to insurance and

establish what is known as an *insurance estate*.⁷ A life-insurance estate is the result of a diversified insurance program planned to cover a variety of needs for the family and to secure the maximum amount of protection for the money saved.

The way in which a life-insurance estate can be developed at different levels of income can be demonstrated by using as a basis the average savings of people in the United States in 1935-1936 according to income groups. In these examples the estimations are made on the rates at age 23, based on gross premium on a participating basis. These estates are suggestive only, and in themselves hold no particular value for a given family.

1. *Income group, \$1,500 and less, tend to have no savings.*
2. *Income group, \$1,500 to \$2,000, savings on the average were \$77.*

Suggested life-insurance estate:

Type of Policy	Amount	Rate
Ordinary life	\$2,000	\$40
20-year term	\$3,500	\$38
	—————	—————
	\$5,500	\$78

3. *Income group, \$2,000 to \$3,000, savings on the average were \$241.*

Suggested life-insurance estate:

Type of Policy	Amount	Rate
Ordinary life	\$1,000	\$20
20-year term*	\$2,000	\$22
Family income plan †	\$8,000	\$193
	—————	—————
	\$11,000	\$235

* The 20-year term to cover an indebtedness, to be used for college education for child, or to be used to increase family income by \$10 per month to \$100.

† Family income policy can be written to return \$80 per month for 10, 15, 20 years, depending on the needs, and the full face value of the policy will be paid to the beneficiary at the end of the period.

4. *Income group, \$3,000 to \$4,000, savings on the average were \$640.*

Suggested life-insurance estate:

⁷ David Owens, *Controlling Your Personal Finances*, pp. 145-177.

Type of Policy	Amount	Rate
Ordinary life*	\$1,500	\$30
20-year endowment†	\$2,000	\$100
20-year term‡	\$4,000	\$40
20-year term§	\$5,000	\$50
Family income and retirement policy||	\$15,000	\$425
	<hr/>	<hr/>
	\$26,000	\$645

* Clean-up fund.

† For education of child.

‡ To cover the mortgage.

§ To cover an indebtedness on the business.

|| Provides, in the event of death of the insured, \$150 a month for 10, 15, or 20 years and the full face value of the policy (\$15,000) paid to the beneficiary at the end of the term, or the option of having the principal in the form of installments until it is exhausted. Or a retirement stipend of \$150 will be paid the insured at age 65.

These suggested estates have all been calculated at the rate offered at age 23. For age 30 the rate would be increased about \$4 per \$1,000, and for 35 it would increase about \$8 per \$1,000.

GLOSSARY OF LIFE-INSURANCE TERMS

Policy is the written contract or agreement between the insurer and the insured.

Face value is the sum for which the policy is written, and it is paid to the beneficiary upon the death of the insured.

Beneficiary is the person or persons named in the policy to receive the proceeds of the contract at the death of the insured or at maturity of the policy.

Premium is the yearly sum paid for the contract.

Reserve is the portion of each premium required by law to be set aside by the company to accumulate, giving rise to the fund which forms the basis of the repayment of the face value of the policy.

Cash or loan value is the amount that can be realized on the policy at any time it is surrendered. The summation of reserve year by year plus the earnings make up the cash value.

Mortality rate means death rate.

Loading refers to an overcharge made by the company to ensure safety which is added to the premium and is usually returned to the insured in the form of dividends.

CHAPTER XVII

CONSUMERS' INCOMES AND EXPENDITURE IN THE UNITED STATES

After an individual or a family has gained some knowledge of personal or family financial situation through a thorough-going analysis such as suggested in Chapters XI and XII, the next interest is usually one of comparison. Such questions as the following naturally arise. What incomes do other people in the United States receive? How does mine compare with the general average? With the average of my occupation or profession? With the average size of the family group? With variation in types of community? And how do other people or families spend their incomes? Do expenditure patterns vary with amounts of income received by people?

This chapter seeks to help answer these questions by presenting for comparison certain selected data¹ from a study of the incomes people received in 1935-1936 and of how these incomes were used. The data reproduced here are the result of a nationwide survey made in 1936 as a Works Progress Administration project and conducted by the United States Bureau of Home Economics and the United States Bureau of Labor Statistics with the cooperation of the National Resources Committee² and the Central Statistical Board. This study was the first of its kind and the most extensive study of consumer incomes and expenditures ever made. It covered some 300,000 families and a smaller number of single men and women, with detailed information on the way the incomes were used from about 60,000

¹ Reports: National Resources Committee.

Consumer Incomes in the United States—Their Distribution in 1935-36, 1938.

Consumer Expenditures in the United States—Estimates for 1935-36, 1939.

The Consumer Spends His Income, 1939.

² The functions of this committee were transferred on July 1, 1939 to the National Resources Planning Board.

families living in 51 cities, 140 villages, and 66 farm counties.⁸ These data on both income and expenditures include not only money outlay but also the estimated value of the use of homes owned and lived in by the families represented, of home-produced food, and certain other types of goods and services (real income) going into the family living but without expenditure of money.

INCOMES RECEIVED IN 1935-1936 BY CONSUMERS

Figures 14 through 18 present the data showing incomes received by families and individuals in the United States in 1935-36.

DISTRIBUTION OF FAMILY INCOME IN THE UNITED STATES BY INCOME LEVEL*

1935-36

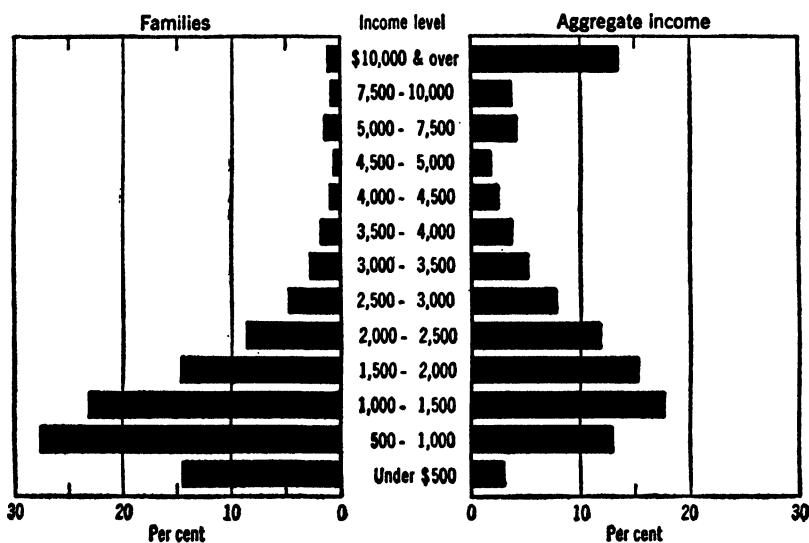


FIGURE 14.

* National Resources Committee, *Consumer Incomes in the United States; Their Distribution in 1935-36*, Chart 1, p. 3, August, 1938.

1936 for total population, for type communities, for four sizes of families, and for occupational groups.

The aggregate income in the United States for 1935-1936 was approximately 59.3 billion dollars, 48 billion being received

⁸ *The Consumer Spends His Income*, pp. 3-4.

by families and 10 billion by single individuals. The majority of consumers were members of families of two or more persons sharing an income in common and living under the same roof. This means that about 29,400,400 families made up about 91

**DISTRIBUTION OF INCOME OF SINGLE INDIVIDUALS
IN THE UNITED STATES
BY INCOME LEVEL*
1935-36**

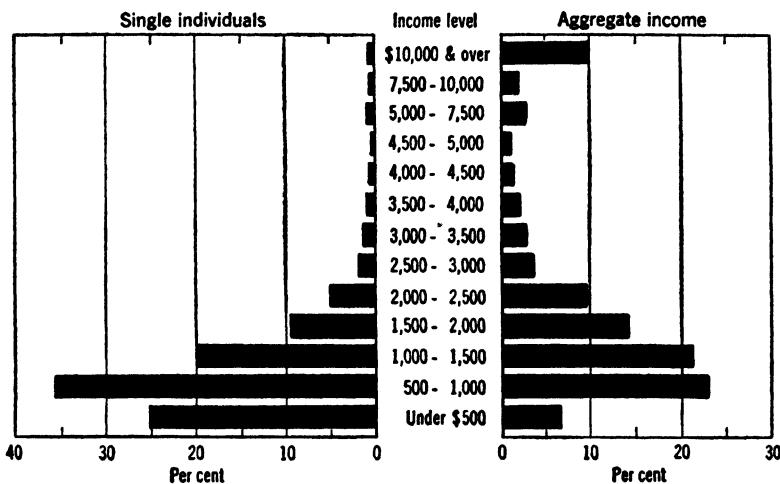


FIGURE 15.

* *Ibid.*, Chart 2, p. 4.

per cent of the total body of consumers, with 10 million single individuals and approximately 2 million individuals in institutional groups.⁴

DISTRIBUTION OF AGGREGATE NATIONAL INCOME

Figures 14 and 15 give the distribution of aggregate national income by income groups for families and for single individuals for the year 1935-1936. Examination of both figures shows a massing of incomes on the lower levels in both groups. About 65 per cent of the families received \$1,500 or less; about 87 per cent received \$2,500 or less; about 93 per cent \$3,000 or less. In the high-income groups only about 1 per cent received \$10,000 or over, and yet this 1 per cent received approximately 13 per

⁴ *Consumer Incomes in the United States*, pp. 2-3.

cent of the aggregate income. Forty-two per cent with incomes under \$1,000 received less than 16 per cent of the aggregate. Between two-fifths and one-half of the families in the lower-income groups received only 3 per cent more income than one one-hundredth on high income levels.⁵

For single individuals, although the picture of incomes received in 1935-1936 resembles, in the main, that received by families, there is a greater concentration of numbers in the lower income levels than for families. Sixty-one per cent of the individuals were receiving incomes of less than \$1,000, about 95 per cent less than \$2,500, and only 1 per cent received incomes of \$5,000 or over. It should be remembered that \$1,000 supplies more needs for a single individual than for a family of four.⁶

Since the data in Figures 14 and 15 represent averages for all classes of people, an investigation of several more refined classifications will have more meaning for the person who wishes to know what incomes are received by people in general, or for comparisons of personal income with those received by others. Figures 16, 17, and 18 present variations around general averages according to important classifications. All three show incomes for non-relief families and are classified according to (1) types of communities, (2) size of families, and (3) occupational groups.

DISTRIBUTION ACCORDING TO TYPES OF COMMUNITIES

Income distribution of families according to types of community is found in Figure 16. Certain observations are worthy of attention. The income groups in each type of community are concentrated on the \$500 to \$2,500 level, which is to be expected, since the preponderance of the total population is found in these groupings. In general the consumers in metropolises had less extremes in incomes than the other localities. Finally, there is a marked similarity of patterns of income distribution in middle-sized cities, small cities, and rural nonfarm groups. These observations indicate that location according to type of community has some value for predicting income distribution.

⁵ *Ibid.*, p. 3.

⁶ *Ibid.*, p. 3.

**INCOME DISTRIBUTIONS OF NONRELIEF FAMILIES
IN SIX TYPES OF COMMUNITY***

1935-36

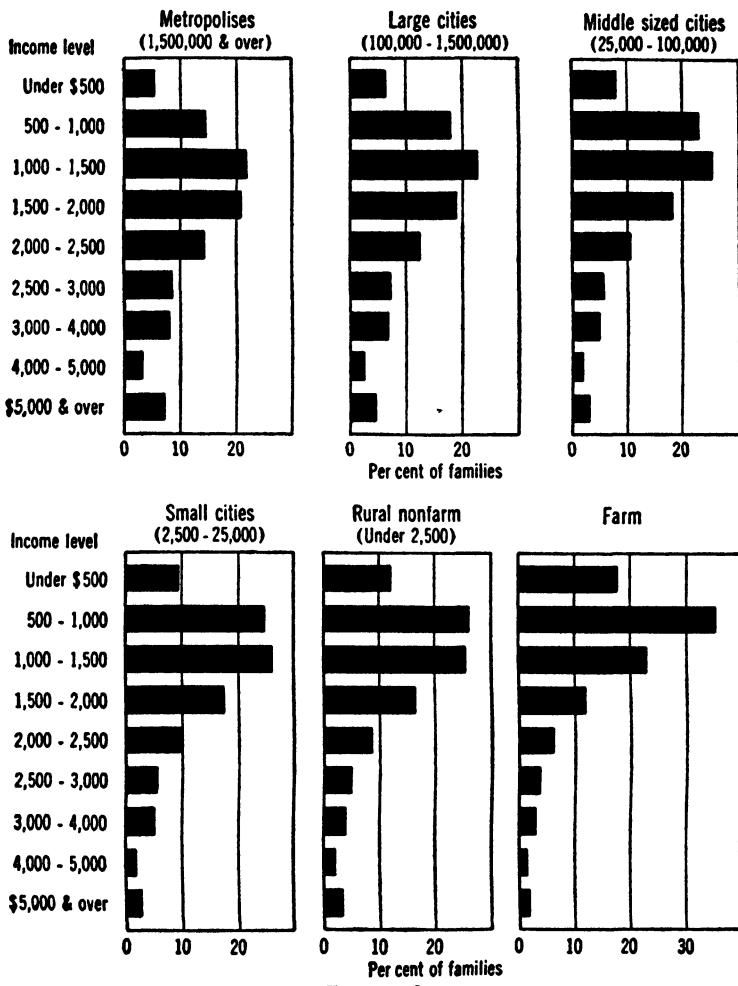


FIGURE 16.

* *Ibid.*, Chart 15, p. 24.

DISTRIBUTION ACCORDING TO SIZE OF FAMILIES

Another classification of income distribution is given in Figure 17. Here we find the distribution according to four sizes of families: two, three-four, five-six, and seven or more persons. The size of the family seems to have very little effect upon the

size of income. The distribution of income by a family size shows similarity for all groups. The major difference is a slightly larger

**INCOME DISTRIBUTION OF NONRELIEF
FAMILIES OF FOUR SIZES***
1935-36

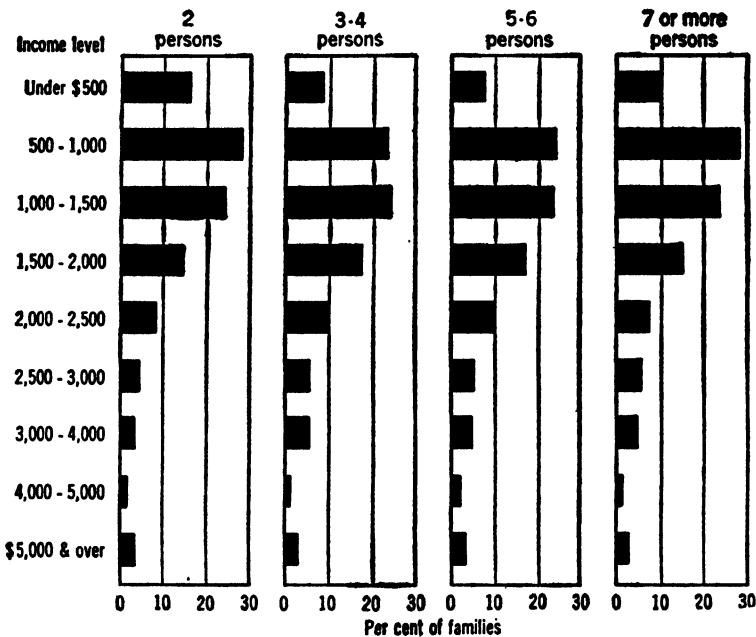


FIGURE 17.

* *Ibid.*, Chart 13, p. 21.

proportion of both two- and seven-person families receiving \$500 to \$1,000.

DISTRIBUTION ACCORDING TO OCCUPATION

Figure 18 gives an occupational distribution and makes possible a comparison of personal income with groups according to seven occupations.

The occupations represented in Figure 18 are salaried business, independent business, salaried professional, independent professional, wage-earning, clerical, and farming. The wide variation in return from occupation to occupation is well dem-

onstrated. Salaried professional, salaried business, and independent professional received the higher incomes of \$2,000 and over, and independent business, wage-earning, and farming concentrated in the \$2,000 and less groupings.

**INCOME DISTRIBUTIONS OF NONRELIEF FAMILIES
IN SEVEN OCCUPATIONAL GROUPS***
1935-36

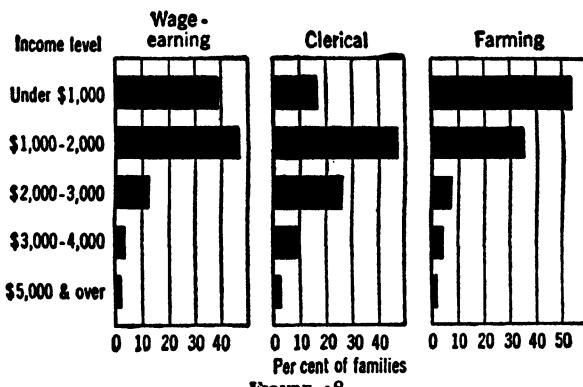
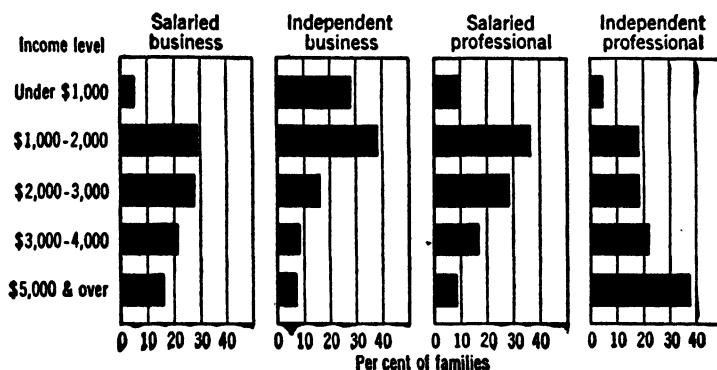


FIGURE 18.

* *Ibid.*, Chart 17, p. 27.

In drawing comparisons and conclusions from these income data it should be pointed out that they are general averages and that individual incomes may vary widely from these presented. Further that they are data for 1935-1936; other years might show a different distribution.

HOW INCOMES WERE SPENT IN THE UNITED STATES IN 1935-1936

USE OF AGGREGATE INCOME

The aggregate income flowing into the treasuries of families and individuals in 1935-1936 totaled approximately 59.3 billion dollars. Of this amount about 85 per cent, or 50.2 billion, was spent for current consumption; almost 4 per cent, or 2.2 billion, was used for gifts, contributions to church, and philanthropy; 1.5 per cent, or about 900 million, was paid in taxes; and about 10 per cent, or 6 billion, was saved.⁷

In the aggregate, the largest part of total income of all consumers went for food. About 29 per cent, or 17 billion, was spent for food, of which 15 billion was for purchase of foods and 2 billion was the imputed value of home-produced food. Housing was the next large item, with 16 per cent, or 9.5 billion, spent, of which 2.4 billion was imputed value of the use of owned houses, farm homes, and rent-free houses. Household operation and clothing tied for third largest group of expenditures, each claiming 9 per cent, or 5.3 billion. The remaining groups of expenditures were for the automobile, claiming 6.5 per cent, or 3.8 billion spent in both operation and purchase of cars; 4 per cent, or 2.2 billion, was spent on health and medical care, which does not include public and private care supplied free to a part of the population; 3 per cent, or 1.6 billion, was spent on recreation; 1 billion on tobacco and personal care; 500 million on education, which represents family and individual expenditure, not public expenditures or gifts; and 300 million on small or minor items.⁸

EXPENDITURE DISTRIBUTION ACCORDING TO THIRDS OF THE NATION

Figure 19 gives the general distribution of use of income on a more refined basis, in that the average disbursements of families and individuals in each third of the nation are given for food, housing, household operation, clothing, automobile, medical care, recreation, miscellaneous gifts and taxes, and savings. Note that the relation remains about the same for all categories; the

⁷ *Consumer Expenditures in the United States*, p. 4.

⁸ *Ibid.*, pp. 4-5.

difference lies in an increased amount used for each as income increases.

AVERAGE DISBURSEMENTS OF FAMILIES AND SINGLE INDIVIDUALS IN EACH THIRD OF NATION*

1935-36

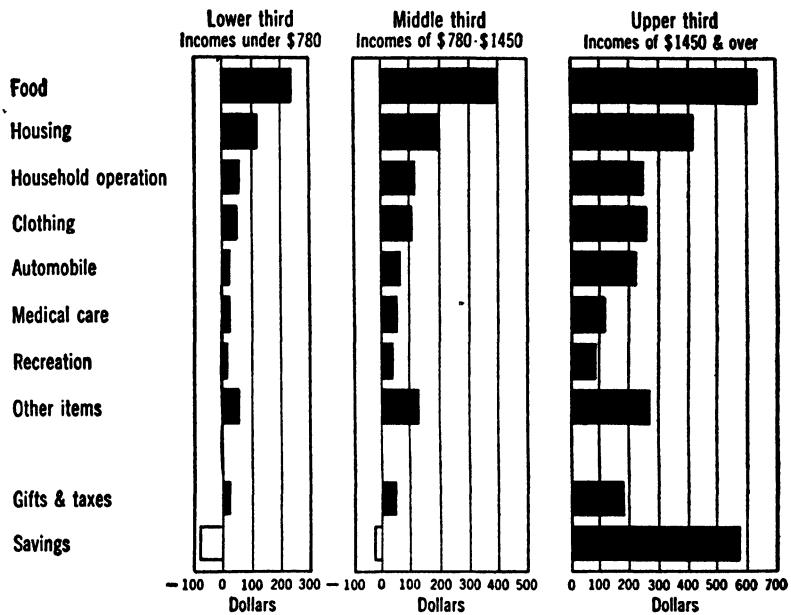


FIGURE 19.

* National Resources Committee, *Consumer Expenditures in the United States Estimates for 1935-36*, Chart 13, 1939, p. 41.

USE OF INCOMES BY AMERICAN FAMILIES

The way 29½ million families spent their incomes in 1935-1936 is shown in Figures 20 and 21. These data show the percentage use of income and percentage allocation of expenditures by American families classified according to income levels.

A study of the figures reveals a number of significant differences as incomes either increase or decrease. The first observation which should be made is that on the average families living on \$1,500 or less had no savings; in fact, they spent more than they received, as indicated by negative savings. Those who received under \$500 were dependent upon some other source for a large portion of their living. The most striking change in

design of expenditure as income changed is the decrease in the relative amount spent for food from the lower-income-group levels through to the high group levels, with an increase in the

PERCENTAGE USE OF INCOME BY AMERICAN FAMILIES AT DIFFERENT INCOME LEVELS*

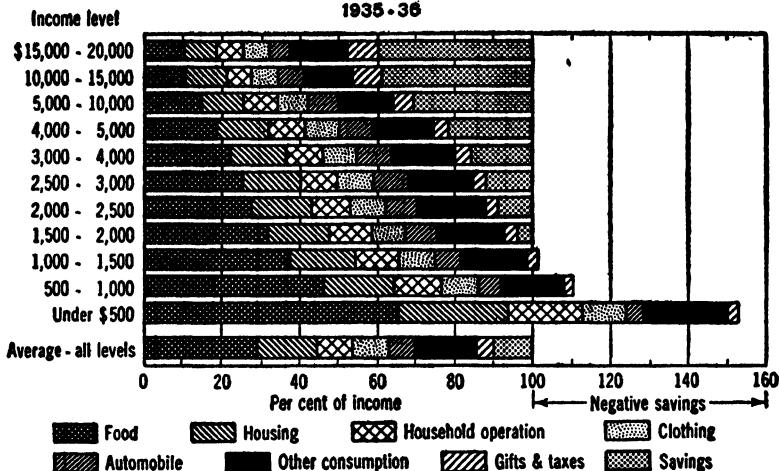


FIGURE 20.

* *Ibid.*, Chart 6, p. 21.

proportion going for savings. At the same time there appeared to be a rather narrow margin of relative change of expenditures for the other items. In absolute terms, actual dollars spent, there was a gradual increase in the amount spent for all other items as income increased (see Table XXIX).

USE OF INCOME BY SINGLE INDIVIDUALS

The way the 10 million single individuals spent their incomes in 1935-1936 is shown in Figure 22. The data are in terms of the percentage of income used for the various categories of expenditure and for savings.

The percentage spent for food decreased as income increased just as in the expenditures of families, and the amount and percentage going into savings increased. Single individuals living on an income of \$1,000 and under were not completely self-supporting from earnings as was true with families on this low

TABLE XXIX
AVERAGE EXPENDITURES OF AMERICAN CONSUMERS* IN SEVEN INCOME GROUPS FOR MAIN CATEGORIES OF CONSUMPTION, 1935-1936†

Income Group	Average Expenditure per Consumer Unit for													
	All Items	Food	Shelter			Transportation			Medi- cal Care	Per- sonal Care	To- bacco	Read- ing	Educ- ation	Other Items
			Total	Hous- ing	House- hold Oper- ation	Cloth- ing	Auto- mobile							
Lower third, under \$780.....	\$ 550	\$ 236	\$ 178	\$ 115	\$ 54	\$ 9	\$ 47	\$ 16	\$ 11	\$ 12	\$ 10	\$ 6	\$ 3	\$ 3
Middle third, \$780-\$1,450.....	1,056	404	335	199	108	28	102	57	19	41	28	22	23	7
Upper third, \$1,450 and over														
\$ 1,450-\$ 2,000.....	1,534	532	490	283	157	50	156	121	25	68	49	32	32	10
\$ 2,000-\$ 3,000.....	2,039	626	650	370	212	68	243	201	30	94	73	43	40	22
\$ 3,000-\$ 5,000.....	2,818	773	920	513	315	92	337	299	40	138	119	56	50	29
\$ 5,000-\$ 15,000.....	4,714	1,047	1,615	809	504	152	667	537	77	259	243	91	65	44
\$15,000 and over.....	12,563	2,044	4,391	2,437	1,612	342	1,775	1,460	421	724	781	197	118	101
Average, upper third.....	2,212	642	720	408	240	72	251	215	37	106	89	44	40	23
Average, lower third.....	2,212	642	720	408	240	72	251	215	37	106	89	44	40	23

* Includes all families and single individuals, but excludes residents in institutional groups.

† National Resources Committee, *Consumer Expenditures in the United States, Estimates for 1935-36, 1939*, p. 77.

income level. A narrow margin of percentage difference of expenditures for other items was apparent as income changed, although, for both single men and women, the actual amounts spent increased for these items as income increased. For detail

**PERCENTAGE ALLOCATION OF
EXPENDITURES BY AMERICAN FAMILIES
AT DIFFERENT INCOME LEVELS***
1935-36

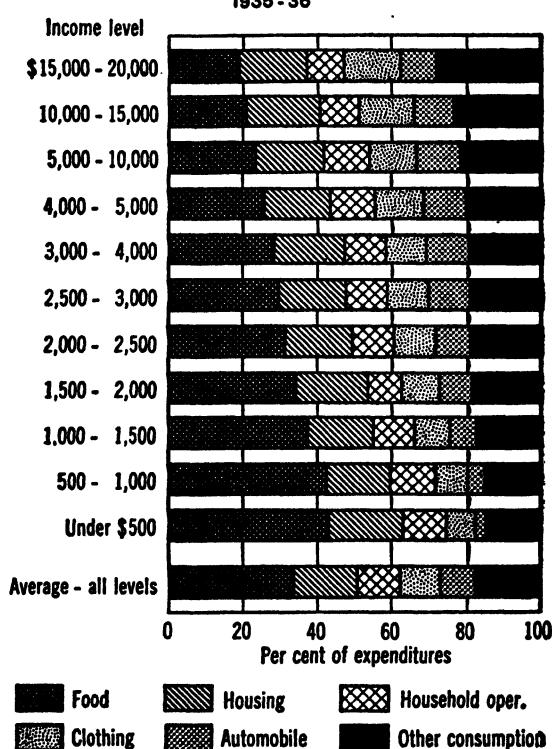


FIGURE 21.

* *Ibid.*, Chart 7, p. 23.

of money expenditure change for both men and women refer to Tables XXX and XXXI.

EXPENDITURES OF PROFESSIONAL WOMEN IN 1939

The living expenditures of a small sample of 83 professional women are shown in Table XXXII, which analyzes expendi-

tures among the major goods and services classified according to income.⁹ The table gives both percentage and average expenditures. The item classification follows that of the consumer purchases study reported in this chapter.

For this group of women, the highest percentage of the total expenditures was spent on the automobile, or 18 per cent; gifts

PERCENTAGE USE OF INCOME BY SINGLE INDIVIDUALS AT DIFFERENT INCOME LEVELS*

1935-36

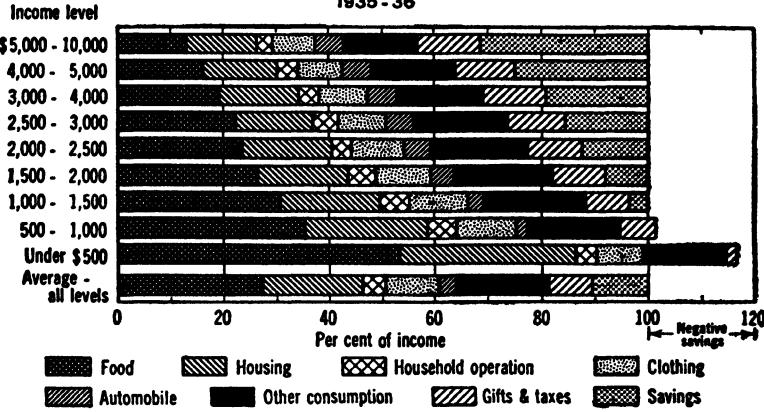


FIGURE 22.

* *Ibid.*, Chart 9, p. 33.

and taxes were next with 16.6 per cent; clothing was third with 16 per cent; housing fourth with 13.1 per cent; food fifth with 12.7 per cent; household operation, furnishings and equipment, medical care, and education were in a narrow range of 4 to 5 per cent each; personal care accounted for 3.3 per cent, and other items for 2.7 per cent. Although this is a highly selected group of professional women, it serves to show one important variation from the averages for all women given in Table XXX.

QUANTITY AND COST BUDGETS FOR FAMILIES

In 1929 the Heller Committee for Research in Social Economics at the University of California developed budgets for

⁹ Day Monroe, Maryland Y. Pennell, and Ruth Rosenwald, *How Professional Women Spend Their Money*, Bureau of Home Economics, United States Department of Agriculture, 1940, p. 11.

TABLE XXX
AVERAGE EXPENDITURES OF SINGLE WOMEN* FOR MAIN CATEGORIES OF CONSUMPTION, BY INCOME LEVEL, 1935-1936†

		Average Expenditure per Single Woman for											
Income Level	All Items	Food	Shelter‡	Clothing	Automobile	Medical Care	Recreation	Personal Care	Tobacco	Transportation Other Than Auto	Reading	Education	Other Items
Under \$500.....	\$345	\$135	\$122	\$36	\$4	\$4	\$2	\$13	\$1	\$24	\$8	\$2	\$4
\$500-\$750.....	599	197	197	93	1	18	12	21	5	36	13	4	8
\$750-\$1,000.....	784	232	254	136	4	30	20	27	8	45	16	4	12
\$1,000-\$1,250.....	954	264	308	175	7	41	28	31	11	53	19	5	16
\$1,250-\$1,500.....	1,116	294	363	211	11	52	34	35	12	61	21	6	16
\$1,500-\$1,750.....	1,263	320	415	243	15	61	40	39	14	69	22	7	18
\$1,750-\$2,000.....	1,406	344	467	273	20	70	46	42	15	76	24	8	21
\$2,000-\$2,500.....	1,593	375	537	312	26	82	54	46	16	86	26	9	24
\$2,500-\$3,000.....	1,833	414	691	360	35	98	63	51	16	99	28	11	27
\$3,000-\$4,000.....	2,184	469	774	427	51	120	76	57	16	119	31	13	31
\$4,000-\$5,000.....	2,593	549	953	502	71	146	91	63	16	143	34	15	35
\$5,000 and over.....	5,496	884	2,367	942	262	320	179	85	18	329	41	25	44
All levels.....	819	229	282	138	10	33	21	25	7	48	15	3	8

* Includes women living in one-person households, lodgers and servants living with families, and women living in lodging or boarding houses or in similar quasi-family groups.

† National Resources Committee, *Consumer Expenditures in the United States, Estimates for 1935-36, 1939*, p. 82.

‡ Includes expenditures for licensing, household operation, and furnishings.

§ Less than \$0.50.

TABLE XXXI
AVERAGE EXPENDITURES OF SINGLE MEN* FOR MAIN CATEGORIES OF CONSUMPTION, BY INCOME LEVEL, 1935-1936†

Income Level	Average Expenditure per Single Man for												
	All Items	Food	Shelter‡	Clothing	Automobile	Medical Care	Recreation	Personal Care	To-bacco	Transportation Other Than Auto	Reading	Education	Other Items
Under \$500.....	\$342	\$177	\$105	\$20	\$1	\$5	\$3	\$6	\$4	\$15	\$6	\$1	\$1
\$500-\$750.....	617	271	179	54	\$10	11	20	12	16	27	12	4	\$1
\$750-\$1,000.....	829	331	234	81	28	18	36	16	25	35	15	7	3
\$1,000-\$1,250.....	1,022	383	282	105	48	26	51	19	33	42	18	9	6
\$1,250-\$1,500.....	1,199	428	327	126	68	35	66	22	39	48	21	10	9
\$1,500-\$1,750.....	1,368	470	370	145	89	44	81	24	45	53	24	11	12
\$1,750-\$2,000.....	1,530	509	411	163	110	54	96	26	50	58	26	11	16
\$2,000-\$2,500.....	1,751	558	465	188	142	69	117	29	56	65	29	12	21
\$2,500-\$3,000.....	2,035	620	536	218	184	90	145	33	64	73	32	11	29
\$3,000-\$4,000.....	2,414	696	629	257	246	121	184	37	73	83	36	10	42
\$4,000-\$5,000.....	3,017	809	775	316	353	176	250	43	86	97	41	7	64
\$5,000 and over.....	6,053	1,244	1,490	575	999	525	621	62	119	149	57	1	211
All levels.....	994	359	273	98	60	33	54	17	29	39	17	6	9

* Includes men living in one-person households, lodgers and servants living with families, and men living in lodging or boarding houses or in similar quasi-family groups.

† National Resources Committee, *Consumer Expenditures in the United States, Estimates for 1935-36, 1939*, p. 81.

‡ Includes expenditures for housing, household operation, and furnishings.

§ Less than \$0.50.

TABLE XXXII
EXPENDITURES FOR LIVING*

Number of professional women having expenditures for specified groups of goods and services, and distribution of total expenditures among major groups of goods and services, by income, 1939. †

Item	Income Class				
	All	Under \$2,000	\$2,000-\$2,499	\$2,500-\$2,999	\$3,000 or over
	83	24	33	20	6
Total number of women.....					
Number of women having expenditures for: ‡					
Furnishings, equipment.....	74	20	29	19	6
Tobacco.....	10	4	4	2	0
Automobile.....	82	24	33	19	6
Other transportation.....	70	19	27	18	6
Average§ expenditures for All goods and services.....	\$1,705	\$1,310	\$1,747	\$1,965	\$2,195
Food.....	217	201	212	250	196
Housing.....	224	217	186	273	207
Household operation.....	73	46	62	99	152
Furnishings, equipment.....	71	53	72	85	98
Clothing.....	272	245	268	296	331
Personal care.....	56	42	60	67	52
Tobacco.....	2	5	1	1	0
Medical care.....	69	35	58	76	239
Formal education, recreation, reading.....	86	71	89	102	79
Automobile purchase and operation.....	308	176	407	322	254
Other transportation.....	44	33	40	62	47
Gifts, welfare, selected taxes.....	283	186	292	333	450
Percentage|| of total expenditures for:					
All goods and services.....	100.0	100.0	100.0	100.0	100.0
Food.....	12.7	15.4	12.1	12.7	8.9
Housing.....	13.1	10.6	10.6	13.9	13.5
Household operation.....	4.3	3.5	3.5	5.0	6.9
Furnishings, equipment.....	4.2	4.0	4.1	4.3	4.5
Clothing.....	16.0	18.7	15.4	15.1	15.1
Personal care.....	3.3	3.2	3.4	3.4	2.4
Tobacco.....	.1	.4	.1	**	.0
Medical care.....	4.0	2.7	3.3	3.9	10.9
Formal education, recreation, reading.....	5.0	5.4	5.1	5.2	3.6
Automobile purchase and operation.....	18.1	13.4	23.3	16.4	11.6
Other transportation.....	2.6	2.5	2.3	3.2	2.1
Gifts, welfare, selected taxes.....	16.6	14.2	16.8	16.9	20.5

* This table does not include value of goods and services received without direct expenditure, as gifts.

† Day Monroe, Maryland Y. Pennell, and Ruth Rosenwald, *How Professional Women Spend Their Money*, Bureau of Home Economics, United States Department of Agriculture, 1940, p. 11.

‡ All women had expenditures for the following: Food; housing; household operation; clothing; personal care; medical care; formal education, recreation, reading; and gifts, welfare, selected taxes.

§ Averages are based on the total number of women in each income class, regardless of whether they had expenditures for the specified groups.

|| \$0.50 or less.

|| Percentages are based on the total expenditures for all goods and services in each class.

** 0.050 per cent or less.

the purpose of presenting estimates of the cost of a "health and decency" standard of living for families of an executive, a clerk, and a wage earner. Since that time each year they have repriced the budgets to measure change in the cost of living from year to year.¹⁰ Because of the controversy of what a "standard"

TABLE XXXIII

BUDGETS FOR FAMILIES OF AN EXECUTIVE, A CLERK, AND A WAGE EARNER*

Items	Executive (4 in Family)		Clerk (5 in Family)		Wage Earner (5 in Family)	
	Annual Amount Allowed	Per- centage	Annual Amount Allowed	Per- centage	Annual Amount Allowed	Per- centage
Total cost including taxes†.....	\$6,539.67	100.0‡	\$2,874.80	100.0‡	\$2,211.20	100.0‡
Taxes.....	194.66	3.0	57.50	2.0	44.22	2.0
Food.....	857.20	13.1	708.20	24.6	642.20	29.0
Clothing.....	862.57	13.2	381.56	13.3	236.75	10.7
Shelter						
Housing.....	1,105.45	17.0	600.00	20.9	408.00	18.4
Household operation	674.11	10.0	143.97	5.0	114.51	5.2
Furnishings.....	287.61	4.4	101.31	3.5	67.46	3.1
Miscellaneous						
Care of person.....	119.38	1.8	59.19	2.1	42.51	1.9
Leisure-time activities	546.61	8.4	184.87	6.4	135.67	6.1
Automobile.....	466.34	7.1	236.25	8.2	236.25	10.7
Carfare.....	56.00	0.9	42.00	1.5	14.56	0.7
Insurance and savings	699.71	10.7	198.92	6.9	119.66	5.4
Medical care.....	275.00	4.2	75.00	3.3	75.00	3.4
Association dues.....	42.83	0.7	18.83	0.7	27.83	1.3
Education.....	101.00	1.5	5.00	0.2	5.00	6.2
Church and charity....	113.00	1.7	18.00	0.6	18.00	0.8
Spending money.....	138.20	2.1	44.20	1.5	23.40	1.1

* Compiled from *Quantity and Cost Budgets for Four Income Levels*, Heller Committee for Research in Social Economics, University of California, Berkeley, California. Prices for San Francisco, March, 1941.

† Excluding state sales tax.

‡ Percentages computed by authors excluding state sales tax.

¹⁰ *Quantity and Cost Budgets for Four Income Levels*, Heller Committee for Research in Social Economics, University of California, 1940, pp. 4-10.

budget is, and the wide variation in the way people actually spend under present conditions, the committee budgets represent a compromise between what it deems ought to be and what is. The budgets are not records of expenditures but quantity content budgets priced each year in representative districts and shops for each type of family in San Francisco. Table XXXIII is a summary of the Heller budgets for the three types of families, an executive, a clerk, and a wage earner, priced as of March, 1941. Examination of the budgets shows the wide percentage variation of item expenditures from one occupational group to another. The committee does not present the budgets as ideal ways of spending to which all families would wish to adhere, but believes they represent decent standards with which comparisons of individual family plans can be made.¹¹

¹¹ *Ibid.*, p. 4.

PART IV

FAMILY HOUSING MANAGEMENT

CHAPTER XVIII

HOUSING FOR FAMILY LIVING

Every individual and every family needs some kind of shelter which will provide protection from the elements as well as some degree of physical comfort and privacy. Most families need housing for sleeping, relaxing, bathing, preparing food, eating, caring for clothing, family living, child rearing, child playing, entertaining, and spending some of their leisure time. Since the activities of the family center in the home, the family's health, comfort, and social and civic life depend in large measure on the nature of the structural plant which forms its shelter.

The large amount of time that members of the family spend at home gives an added importance to housing, since many of the attitudes, interests, and habits of individuals are the result of the surroundings in which they live. The amount of time that parents and children of different age groups in the family spend at home is stated by Wood to be as follows:

"A man working 44 hours a week, 50 weeks in the year, 30 minutes distant from home, spends from a minimum of one-third to a maximum of substantially over two-thirds of his time at home. Illness or unemployment increases the fraction.

"A homemaking woman spends from two-thirds to nineteen-twentieths of her time at home.

"A preschool child spends from two-thirds to nineteen-twentieths of his time there.

"A school child spends from half to more than three-fourths."¹

¹ Edith Elmer Wood, *Introduction to Housing*, United States Housing Authority, 1940, p. IX.

The home time of the farmer whose work is carried on near the home and of certain professional men, tradesmen, and craftsmen whose work or business is carried on in part of the house would naturally be greater than that of the man whose work is away from home.

The selection of the type of housing that will make the hours at home most profitable, comfortable, satisfying, and enjoyable with the money available for housing is one of the major managerial problems of all families.

HOUSING STANDARDS

What kind of houses do the American people live in? Wood answers this question as follows:

“One-third good
One-third fair
One-third bad”²

The housing conditions in different sections of towns and cities, as well as in the country, can be quickly observed by those who drive or pass through. The housing standards for some families may be high, for others low. In one section the standard may be that of mere shelter; in another the standard may be that of simple but healthful living quarters, while in some sections the standard may be one of comfort, convenience, and even luxury. The housing standard for the majority of families is determined largely by what the family can afford and what housing is available at a price they can afford to pay rather than on the basis of the needs of the group.

UNITED STATES HOUSING LEGISLATION

The study of housing in the United States is comparatively new. Nationwide attention was first focused on housing after the depression years between 1930 and 1935 when many home owners were threatened with the loss of their homes. In 1930 a conference on home building and home ownership was called by President Hoover to consider the housing problems of both urban and rural families throughout the country. The re-

² *Ibid.*, p. 9.

searches and discussions that resulted from this conference showed clearly that any improvement of the living conditions of the American family must come from a concerted nationwide movement to provide new and better homes. In June of 1933 the first national housing legislation was passed by the government.

THE HOME OWNER'S LOAN CORPORATION

The first housing act established the Home Owner's Loan Corporation. This was a measure to aid distressed home owners faced with the loss of their homes as a result of the conditions of the economic depression. This measure, which was purely an emergency one, ceased to function after June, 1936. The agency was then taken over by the Federal Home Loan Bank Board under the authority of the Home Owner's Loan Act of 1933, as amended in 1934.

HOUSING UNDER THE PUBLIC WORKS ADMINISTRATION

In order to better living conditions in the overcrowded areas in the cities, "Housing was authorized in the National Recovery Act of 1933, on an emergency basis, as one of the types of public works for which the Public Works Administration could make loans and grants to state or local public bodies provided such bodies were empowered to clear slums and erect low-rent housing."³

Because no state or local agencies having these powers existed when the act was passed, the Public Works Administration assumed the responsibility for originating projects, letting contracts, and supervising all construction. The Farm Security Administration and its predecessors initiated and completed similar projects in rural housing.

FEDERAL HOUSING ADMINISTRATION

The National Housing Act approved June 24, 1934, created the Federal Housing Administration, commonly called FHA. This act was amended in 1935, 1936, 1938, and in 1939. In 1939 the agency was made a part of the Federal Loan Agency under

³ *Ibid.*, p. 121.

the President's Reorganization Plan. The purpose of the National Housing Act is to encourage improvement in housing standards and conditions, to provide a system of mutual mortgage insurance, through the Federal Housing Administration. The act as amended was designed to stimulate activity in the fields of repair and modernization of houses as well as in new home construction.

UNITED STATES HOUSING AUTHORITY

Another important step in housing was taken in 1937, when growing public interest resulted in the enactment of the United States Housing Act. This established subsidized public housing as a permanent, national policy in this country, and it placed the responsibility for its initiation, execution, ownership, and management on the local communities.⁴

The first section of the act which follows shows the potential significance of the declaration: "It is hereby declared to be the policy of the United States to promote the general welfare of the Nation by employing its funds and credit, as provided in this act, to assist the several States and their political subdivisions to alleviate present and recurring unemployment and to remedy the unsafe and insanitary housing conditions and the acute shortage of decent, safe, and sanitary dwellings for families of low income, in rural or urban communities, that are injurious to the health, safety, and morals of the citizens of the Nation."⁵

The progress being made in national housing is shown in the following statement by Nathan Straus, administrator of the United States Housing Authority: "The nation's public low-rent housing program integrated with defense needs, is expected to reach its peak in 1941. In this new year the United States Housing Authority will further extend its efforts on three fronts: slum clearance and the building of decent homes for the over-crowded lower income groups in our cities; rural housing—adequate, livable homes for farm families; and defense housing—

⁴ *Ibid.*, p. 129.

⁵ *Ibid.*, p. 129.

homes for workers in the centers of defense industry, of military and naval activity."⁶

It is the lower third of the families whose yearly income is less than \$860, far too little to support them decently and healthfully, that the United States Housing Authority principally is helping.

HOUSING AND CITY PLANNING

The regulation of the growth of the city and restrictions on various sections have a definite effect upon housing. The tendency of urban neighborhoods to deteriorate and change because of the encroachment of business and industry or the building of apartments running to the sidewalk line has caused many cities to pass zoning ordinances. City zoning sets aside the different areas of cities for specific purposes, such as business, industry, residence, and recreation. In the areas designated for residential purposes, zoning ordinances may set definite standards as to the type of dwellings that may be built, the use that can be made of the houses already built, and the sizes, heights, and densities of buildings. Thus zoning not only helps to preserve residential neighborhoods unspoiled, but also to protect families of moderate means who heretofore could not afford to live in restricted residential areas.⁷

RELATION OF HOUSING TO FAMILY LIVING

The selection of housing of the highest standard the income can provide requires an understanding of the relationship of housing to family living activities, family health, and safety. Housing studies show that many of the problems of physical and mental health, individual development as well as those of family relationship, can be traced to housing which fails to meet the needs of the family. When there is little or no opportunity for social and recreational activities, privacy, and rest, emotional disturbances and tensions are likely to arise which are more far-reaching and difficult to correct than the damage done to the physical health of the family.

⁶ Nathan Straus, *Architect and Engineer*, Vol. 144 (February, 1941), p. 56.

⁷ Carol Aronovici, *Housing the Masses*, New York: John Wiley and Sons, 1939, pp. 32, 149-151.

HOUSING AND THE SOCIAL AND RECREATIONAL LIFE OF THE FAMILY

The house that has at least one room large enough to provide for the social activities of the family contributes much to the social life and experiences of each member of the family. The hours spent in reading and talking around the living-room table or in front of the fireplace, in sharing the day's experiences, in listening to the radio or phonograph, in playing games, or in working on some task or problem together do much to create real affection, happiness, loyalty, and companionship within the family group. Such a room provides a place where friends may come and where satisfying social contacts with those outside the family may be made.

The house that has some place where members of the family are free to go and pursue their own creative efforts adds much to the lives and happiness of the group. Space for recreation of various kinds may be provided in the attic, basement, garage, or some other room of the house. Worries and work are soon forgotten when one becomes engrossed in some hobby or game, and home becomes a more attractive place in which to spend one's leisure time.

THE HOUSE AND PRIVACY OF THE FAMILY

The house that provides privacy for each member of the family—a place to go and rest, play, study, or concentrate on some particular interest alone, and where personal possessions may be stored—eliminates many of the personal relationship problems and tensions that so frequently arise under crowded conditions. Where homes are small or inadequately heated, the living and dining room and kitchen may be used for study and work. When this is necessary a few open shelves or a cabinet that can be used for storage space for individual possessions and a table where one may study or work give a certain feeling of privacy even within the family group. This is all the more true when the spirit of the group is one of cooperation and when each has an interest in the work and success of the others.

Greater quiet and privacy in the sleeping area are ensured when each room is located so that it can be entered from the

hall instead of through another room. If there is only one bathroom in this area, it also should be entered from the hall. The complexity of present-day living, the high speeds at which we travel, and the noise on every side make some provision for rest and quiet extremely important in our homes today.

WHEN HOUSING MUST BE ADAPTED TO ACCOMMODATE OTHERS

Houses which are too small to accommodate, comfortably and with some degree of privacy, persons not of the immediate family group, such as aged parents or other relatives, are frequently the cause of friction and emotional upsets. When houses must be stretched to take care of other individuals, especially those who have been accustomed to the quiet and privacy and freedom of homes of their own, a new philosophy of living frequently must be developed by the family group. This can best be done through family discussions from time to time. Adjustments are more willingly and cheerfully made when each member of the family understands the personal and financial relationship problem involved.

The situation is sometimes met by having two or more children share a room in order to free a room for the new member of the group. Renting a larger house or apartment, if one can afford it, is perhaps the easiest and best method. If the family owns its own home, finishing a room or rooms in the attic or basement for some member of the family is a simple and economical way to get more space. Building a room or rooms on the house may be possible. This is more expensive, but under certain circumstances may be the best solution to the problem. If the family is building a new home, extra space may be provided when the plans are made. When this is done, the person who is able to help plan and finance his part of the house usually feels more a part of the family group and as a result is often more contented and satisfied in the new environment.

RELATION OF HOUSING TO HEALTH

Housing affects both the physical and mental health of the members of a family. Healthful housing provides for the fundamental physiological and psychological needs of the individual

as well as sanitary and safe surroundings. Unhealthful housing increases illness of all kinds, the general death rate, and the occurrence of communicable diseases and delinquency. Thus housing which falls below certain standards becomes the concern of all.

The advance of knowledge regarding health and disease and social problems has raised the present-day health requirements for housing to new levels. The committee on the Hygiene of Housing of the American Public Health Association gives the following requirements as necessary to provide healthful housing for all families.⁸ These are listed under four heads:

1. Fundamental physiological needs:

Maintenance of a thermal environment which will avoid undue heat loss from the human body—adequate artificial heat in cold weather.

Maintenance of a thermal environment which will permit adequate heat loss from the human body—adequate ventilation in warm weather.

Reasonably pure air for breathing purposes—air containing a minimum of dust and smoke and free from noxious fumes.

Adequate daylight illumination—proper relation between window area and floor area and room depth.

Direct sunlight—proper placement of building with regard to points of compass.

Adequate artificial illumination—adequate lighting for different activities of individual members of the family.

Protection against excessive noise—constant noise is injurious to the nervous system.

Provision of adequate space for exercise and for the play of children—play space both inside and outside of house is necessary for the normal development of children.

2. Fundamental psychological needs:

Provision of adequate privacy for the individual.

Provision of opportunities for normal family life.

Opportunities for normal community life.

Facilities for the performance of household tasks without undue physical or mental fatigue.

⁸ "Basic Principles of Healthful Housing," Preliminary Report of the Committee on the Hygiene of Housing, C.-E. A. Winslow, Chairman, *Journal of the American Public Health Association*, March, 1938. Also Second Edition, Appendix A, *Practical Standards for Modern Housing*, National Association of Housing Officials, March, 1939.

Facilities for maintenance of cleanliness of the dwelling and person.
Possibility of reasonable aesthetic satisfaction in the home and its surroundings.

Concordance with prevailing social standards of the local community.

3. Protection against contagion:

Provision of a water supply of safe, sanitary quality, available to the dwelling.

Protection of the water-supply system against pollution within the dwelling.

Toilet facilities of such a nature as to minimize the danger of transmitting disease—a private toilet for the exclusive use of the family, with sewer connection where sewers exist.

Protection against sewage contamination of the interior surfaces of dwellings.

No unsanitary conditions in the vicinity of the dwelling.

Exclusion of vermin may help to prevent transmission of disease.

Provision for keeping milk and other foods undecomposed.

Sufficient space in sleeping rooms to minimize contact infection—50 square feet floor space per occupant is the minimum in a sleeping room.

4. Protection against accidents:

Use of such building materials and construction methods as will minimize the danger of structural collapse.

Control of conditions likely to cause fires or promote their spread.

Adequate facilities for escape in case of fire.

Protection from electrical shocks or burns.

Protection from gas poisoning.

Protection against falls and other mechanical injuries in the home.

Protection of the neighborhood against the hazards of automobile traffic.

RELATION OF HOUSING TO SAFETY

There is no place like home for getting hurt. This is what safety experts tell us, and statistics bear them out. According to estimates made by the Statistical Bureau of the National Safety Council, nearly as many people lose their lives from accidents in the home as are killed by automobiles. In 1940, the total number of accidental deaths in the United States was approximately 96,500, of which 34,400 were attributed to the motor vehicle and 32,500 were classed as home accidents. Be-

MANAGEMENT IN FAMILY LIVING

TABLE XXXIV
HOSPITALIZED HOME ACCIDENTS, TYPE OF ACCIDENT BY LOCATION*

Type of Accident	Total	Kitchen	Bed-room	Living Room	Dining Room	Bath-room	Hall	Base-ment	Inside Stairs	Outside Stairs	Porch	Yard	Garage and Shed	Else-where	
All types.....	4,622	811	329	393	143	126	91	262	458	593	333	870	81	102	
Falls.....	2,910	269	160	227	69	51	64	68	443	573	281	634	21	50	
On stairs.....	1,029	52	3	3	11	1	13	10	428	516	41	1	3	2	
On floors.....	285	95	23	39	13	27	19	25	2	32	2	3	7	1	
On rug.....	83	13	8	10	10	10	1	3	3	2	1	1	1	1	
On walls or ground.....	257	2	1	1	2	3	1	1	4	1	242	1	1	1	
From chairs, tables.....	173	83	6	54	13	1	4	4	1	6	1	6	1	2	
From windows.....	123	14	29	41	12	6	6	6	1	4	7	4	6	1	
From ladders or scaffolds.....	128	18	12	26	6	1	3	4	3	1	1	7	5	6	
From fences.....	66	...	...	...	...	...	...	...	...	...	...	65	1	1	
From other outside elevations.....	413	2	1	2	1	1	1	1	1	1	50	172	150	6	
Over objects.....	100	25	13	6	2	2	7	3	1	2	2	11	90	6	
In or out of bed.....	93	1	61	6	7	2	2	1	1	1	3	21	1	4	
All others.....	70	10	9	6	1	10	1	4	2	1	1	21	1	4	
Struck by, falling objects.....	191	31	12	19	7	6	4	28	1	1	1	6	49	22	5
Stepping on, striking against object.....	298	66	24	47	15	7	5	32	8	8	21	51	12	2	2
Collision with inanimate objects.....	78	14	9	6	3	1	3	5	3	8	7	14	5	2	1
Nail or splinter.....	71	11	2	6	2	1	1	11	3	1	10	21	5	2	1
Needles, pointed objects.....	149	41	13	35	10	7	2	16	2	...	4	16	2	1	1
Handline, lifting, carrying.....	149	28	11	12	3	1	1	41	2	5	1	25	8	12	1
Burns, scalds, explosions.....	391	220	36	23	16	20	3	24	1	2	4	33	7	2	2
By gasoline, cleaners.....	67	35	5	2	2	1	1	6	1	1	1	3	7	1	1
By steam, hot liquids.....	152	118	5	4	6	11	1	6	1	1	1	1	1	1	1
All others.....	172	67	26	17	8	9	2	12	...	1	...	26	1	1	1
Asphyxiation, suffocation.....	24	7	8	5	1	1	1	1	...	...	1	...	1	1	1
Firearms.....	38	7	9	6	2	1	2	2	1	1	1	7	1	1	1
Poison (excludes poisonous gas).....	127	76	12	2	12	21	1	1	1	1	3	...	1	1	1
By food.....	77	61	3	1	12	1	1	1	1	1	1	1	1	1	1
All others.....	50	15	9	1	...	21	1	1	1	1	3	...	1	1	1
Cut or scratch.....	150	50	5	10	6	9	4	24	...	...	6	27	4	5	5
Bitten by animals.....	19	6	3	2	2	1	1	1	1	1	1	2	4	1	1
Foreign bodies.....	70	19	12	6	6	2	1	1	1	1	1	2	5	1	1
Hand caught in wringer.....	56	14	12	11	6	2	1	1	1	1	1	1	1	1	1
All others.....	179	28	37	16	5	4	1	8	4	4	4	35	1	5	4

* Source: Survey of home accidents hospitalized at Cook County Hospital, 1933 and 1934, WPA project 2,950, sponsored by Cook County Bureau of Public Welfare. Supervised by National Safety Council.

sides these fatal accidents in the home, it was estimated that there were approximately 4,750,000 nonfatal home accident injuries, an accidental injury in every seventh home in the year.

The rough estimate of the costs of these home accident injuries—wage losses, medical expense, the overhead costs of insurance—amounted to \$600,000,000, an average cost of almost \$20 per home.

FATAL HOME ACCIDENTS BY TYPE AND AGE

Fatal falls accounted for 16,000 home accident deaths in 1940. Burns and fires in homes killed approximately 5,700 persons. The other principal types of home accident deaths were poisonings, poison gases, firearms, and mechanical suffocation.

The importance of an individual type of fatal home accident changes with the age group. Special studies show that burns cause the greatest number of fatalities in the age group under 25 years old while falls account for the greatest number of fatalities for the 25-to-64-year group. For the 65-year-and-over group, falls cause about 80 per cent of the fatalities.

A study of 4,602 hospitalized home accidents at Cook County Hospital, Chicago, is of interest since it shows not only the type and location of home accidents, but also the mechanical and personal causes of these accidents (Table XXXIV).

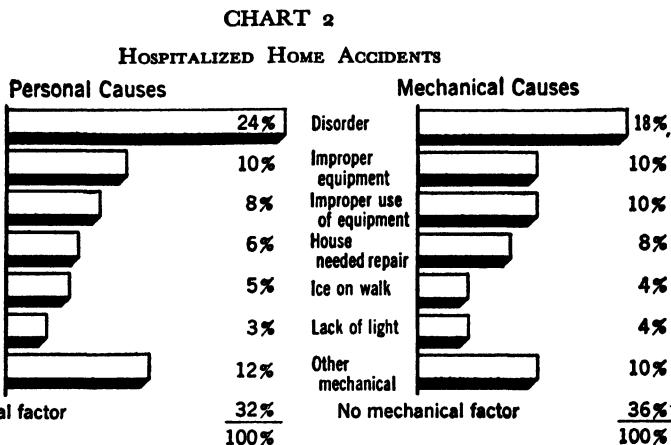
The figures in Table XXXIV show that falls caused by far the greatest number of these home accidents. Structural features of the house—the stairs, both inside and out, and the floors in the various rooms of the house—were the chief hazard spots.

The mechanical causes listed in Chart 2 indicate that disorder, improper equipment, and improper use of equipment accounted for the greatest number of home accidents in this group. Structural defects and inadequate lighting of the home were responsible for many more of the accidents. A closer analysis of the accidents which appear to result from disorder would probably show that poorly arranged houses and inadequate storage space may be the real cause of disorder and poor habits of work.

According to the information in the chart on personal causes of these accidents, 24 per cent of the injured persons felt that poor judgment was partly responsible for their accidents.

Thoughtlessness on the part of adults led to many of the accidents of children. Physical frailty, hurry, and intoxication were the cause of 19 per cent of the accidents.

The cost in life and in decreased efficiency due to injuries from accidents together with the great money cost of home



(National Safety Council, Chicago: *Accident Facts*, 1940 edition)
4,602 Home Accidents Hospitalized at Cook County Hospital, Chicago.

accidents emphasizes the need for attention to accident prevention both in the planning and construction of the house and in the use, care, and upkeep of the house after occupancy.

BUILDING TO ELIMINATE ACCIDENTS

STAIRS

In building to eliminate accident hazards special consideration should be given to the construction of the stairs, for statistics show that about 50 per cent of the home accidents are falls, about a fourth of which take place on stairs and steps.

The table of safety standards for stairs, which was developed under the direction of the Safety Engineering Department of the National Workmen's Compensation Service Bureau, indicates that there are a number of desirable dimensions for stair risers and treads (Table XXXV). The most satisfactory values, however, are $6\frac{3}{4}$ to 7 inches for the riser and $10\frac{3}{4}$ to $10\frac{1}{2}$ inches for the tread. Of course, slight variations in these dimensions

TABLE XXXV
TABLE OF RISERS AND TREADS FOR STAIRS
Tread + Riser = 17½ inches

Angle with Horizontal	Riser	Tread	
Degrees 22 Minutes 00	Inches 5	Inches 12½	
23 14	5¼	12¾	
24 38	5½	12	
26 00	5¾	11¾	
27 33	6	11½	
29 03	6½	11¼	
30 35	6½	11	
32 08	6¾	10¾	Preferred
33 41	7	10½	
35 16	7¼	10¼	
36 52	7½	10	
38 29	7¾	9¾	
40 08	8	9½	
41 44	8¼	9¼	
43 22	8½	9	
45 00	8¾	8¾	
46 38	9	8½	
48 16	9¼	8¼	
49 54	9½	8	

may be made, but the sum of the tread and riser should equal approximately $17\frac{1}{2}$ inches, exclusive of the nosing, and the angle with the horizontal should be between 30 and 36 degrees. A nosing of about 1 inch is desirable. These dimensions which

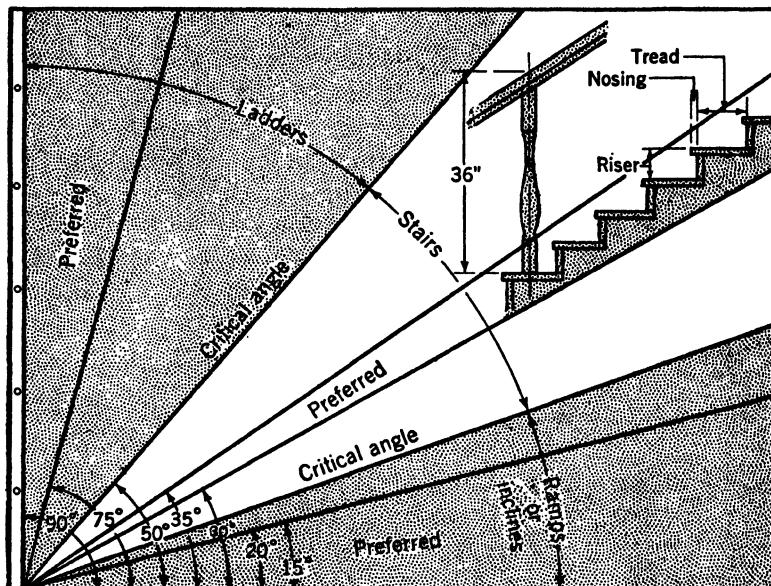


FIGURE 23. Safety standards for stairs, ladders, ramps, and inclines, developed by Safety Department of National Workmen's Compensation Service Bureau.

have proved the safest for large numbers of people may well be used as a pattern for the building of safer stairs for the home.

The general safety standards for stair construction recommended by the Bureau are as follows:

1. Stairs should be free from winders (Figure 24).
2. The dimensions of landings should be equal to or greater than the width of stairways between handrails (or handrail and wall) (Figure 25).
3. Landings should be level and free from intermediate steps between the main up flight and the main down flight.
4. All treads should be equal and all risers should be equal in any one flight.
5. The sum of one tread and one riser, exclusive of the

nosing, should be not more than 18 inches or less than 17 inches.

6. The nosing should not exceed $1\frac{3}{4}$ inches. •
7. All stairs should be equipped with permanent and substantial handrails 36 inches in height from the center of the tread (Figure 23).
8. All handrails should have rounded corners and a surface that is smooth and free from splinters.
9. The angle of stairs with the horizontal should be not more than 50 degrees or less than 20 degrees. (See Table XXXV and Figure 23.)
10. Stair treads, if used, should be slip proof, firmly secured and with no protruding bolts, screws, or nails.

It is well to remember also, that, the more nearly we approach the same dimensions for all stairs in the house, the more safely

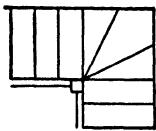


FIGURE 24.

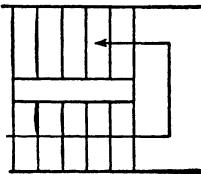


FIGURE 25.

will the family traverse them and the less adjustment will be necessary in the use of the different flights of stairs.

The adequate lighting of stairways and halls at both the top and bottom of the stairs is another important factor in stair safety. The location of windows at the landings or the head of the stairs to provide sufficient light for daytime use and the placement of ceiling outlets to ensure good illumination when artificial light is necessary should be given careful consideration. To ensure still greater safety, the control switches for these outlets should be located within easy reach at both the top and bottom of the stairs, so that the passage can be made with light in front at all times and also so that lights can be turned off without going back to do so. If this principle were observed in the lighting of all stairways, as well as the basement, attic, and garage, there would be fewer accidents in the home.

OUTDOOR STEPS

Many falls occur upon outdoor steps and porches. Particular attention should be given to the design and proportions of the steps leading to the house, since unequal risers or treads or surprise steps in the landings are likely to cause tripping and falling. The safety standards for interior stairs should be applied to outside steps as well.

Attention should also be given to the size and shape of the entrance porch or landing at the top of the steps. Either one should be large enough for a person to stand on to open and close the house and screen door without having to step off the landing and up again, or without danger of being pushed off the edge in opening the screen door. On porches of any height, railings or some substitute, such as seats or flower boxes, should be used to prevent the possibility of a person's falling off the edge.

Fortunately, many of the outdoor step and porch hazards may be entirely eliminated by setting the house close to the ground and lighting the basement by means of area windows. If such windows are deep, they may be made safe by covering the top of the opening with an iron grating. The angle of inclines or of ramps leading to the house or garage should also be planned carefully. Too steep grades should be avoided.

BATHROOMS

Far too many accidents happen in the small area of the bathroom—accidents which could be prevented by forethought. For instance, many falls occur because the soap is left in the tub and the bather steps on it and slips. The lack of a suitable place to lay the soap is frequently the cause of this seeming carelessness. A soap dish built into the wall beside the tub is one of the best methods of removing the soap hazard.

A handrail placed just above the soap dish and another about shoulder height under the shower are other much-needed safety devices. With the help of these aids one can stand in a slippery tub and step out of the tub with some degree of safety.

The handles of the water faucets should also be chosen with

an eye for safety. Cuts from sharp edges and broken handles and burns from scalding water are frequent causes of accidents. To pass the safety test, each handle must be smooth, durable in construction, easily grasped, and properly labeled and routed.

Defective wiring, poorly placed lighting fixtures, and the use of portable appliances are all too familiar causes of bathroom accidents. Since it is not safe to touch a light fixture or a switch while in the tub, it is important that all fixtures should be installed so that they will be out of reach of the bather. Only porcelain or composition sockets are safe to use in the bathroom or in any other place where the floor is likely to be damp. If the use of an electric heater is planned for times when the room may not be otherwise adequately heated, it is advisable to install a built-in electric heater and equip it with a wall switch.

WINDOWS

Many falls occur from windows, especially where the sills are low. Frequently, the lower sash, which must be pushed upward, sticks and then suddenly gives way, and the person who is raising it lurches forward. Securely fastened screens, bars on windows, and the use of the upper sash for ventilating are some of the ways of overcoming this hazard. The safest way, however, is to build the windows high enough so that there is no danger of children's falling out when left alone or of older persons' losing their balance in adjusting windows.

DOORS

The location and direction in which each door swings should be carefully planned, since wrongly positioned doors are often the cause of minor accidents.

The width of kitchen cupboard doors and the direction in which they swing are also important details. There is far less danger from bumps and sharp corners when the doors are narrow and are hung so that they swing away from the sink or working surfaces.

When there are little children in the house, the swinging

door may be a hazard. A safety catch which holds the door in place when opened saves bumps and pinched fingers.

A single master key that will open all outside doors of the house is a small but exceedingly important safety device. Many times it saves going around the house in the dark or in the rain to the other door. Many accidents occur under just such circumstances.

STORAGE SPACES

Indirectly, the lack of suitable storage space in homes is the cause of many accidents. The practice of storing such things as table boards, the ironing board, cleaning tools, and empty fruit jars on stair steps is more likely to be due to inadequate storage facilities than to poor methods of housekeeping or carelessness. Adequate, well-placed storage spaces throughout the house make for orderliness in housekeeping.

Such conveniences as the built-in ironing board which quickly and easily disposes of both the board and flatiron, cleaning closets both upstairs and down which provide ample space for cleaning equipment, closets for both the indoor and out-of-door children's playthings which are bound to be under foot if no provision is made for their storage, well-planned storage space in the kitchen which eliminates the necessity for storing food supplies and equipment on the floor or in inconvenient places, and the medicine cabinet which keeps poisons out of the children's reach all help to rid the house of hazard spots.

In a similar manner, other built-in features minimize the number of home accidents. The clothes chute does away with the unsafe practice of putting clothes on the steps. The dumb waiter serves as a temporary storage space for articles that must be transferred from the kitchen to the basement, and vice versa, and thus keeps the steps free from such articles. The dust chute and incinerator take care of the kitchen waste in the safest and easiest manner. The package receiver keeps milk bottles and packages off the floor and out of the line of traffic. An outside icing door, if ice is used, and a permanent drainage connection to carry away waste from the refrigerator decrease the possibility of a wet and slippery floor.

As an added safeguard, storage spaces should be properly lighted. Inadequate light naturally encourages disorderly habits, and where there is disorder, there is always the danger of stumbling or of knocking articles off shelves and causing serious injury.

ELECTRIC WIRING

For safety's sake home builders should make sure that their wiring specifications comply with the local ordinances or with the provisions of the National Electrical Code of the National Board of Fire Underwriters. All specifications should call for supply lines of sufficient size to provide not only for present usage but also for future requirements, and for plenty of well-insulated, properly placed light, switch, and appliance outlets. From the standpoint of safety, it is desirable to have the wall switch to control the lights at the point of usual entrance to the room. In rooms, such as the kitchen and dining room, which are frequently entered from more than one door, control switches may well be placed at both entrances.

These are only a few of the hazard spots in the home, but they are sufficient to show that safety in the home, after all, depends in a large measure on the good judgment of the home builder.⁹

⁹ Jean Muir Dorsey, "Safety Building Methods Will Help Eliminate Accidents in Homes," *American Builder*, Vol. 50 (September, 1939), pp. 38, 39, 65.

CHAPTER XIX

THE FINANCIAL ASPECTS OF HOUSING THE FAMILY

Housing costs may be in the form of rent or, if the house is owned, the sum total of all the costs connected with the purchase and maintenance of the property. The amount that any individual or family can spend on rent or home ownership is conditioned in a large measure by the size and regularity of the income and the expenditures that must be made to meet the other needs.

HOW MUCH OF THE INCOME IS SPENT ON HOUSING?

The study of the living expenditures of families in the different income groups (Table XXIX) shows that families whose income was under \$780 spent on the average 20.9 per cent, or \$115, of the yearly income for housing. The housing expenditures of families whose income was between \$780 and \$1,450 averaged 18.8 per cent, or \$199 a year, while those whose income ranged from \$1,450 to \$3,000 spent from 18.4 to 18.2 per cent, or from \$283 to \$370, on housing. Families in the higher-income group, \$3,000 and over, spent from 18.2 to 19.4 per cent, or between \$513 and \$2,437, of their income on housing. These figures indicate that the proportion of the income devoted to housing remains about the same from the lowest income level to the highest, while the actual amount of the income spent for housing rises gradually from the lowest to the highest level.

According to these data families use from 18 to 21 per cent, or from one-sixth to one-fifth, of their yearly incomes for housing. The amount spent for housing by families renting apartments, however, may run slightly higher than this, since this rent frequently includes heat, water, janitor service, garbage disposal, use of the laundry, and a garage for the car. Such

services are usually listed as household operation or automobile costs.

The yearly expenditures of professional women reported in Table XXXII show that this group spent on an average \$1,705 for all goods and services. Of this amount 13.1 per cent, or \$224, was used for housing. Although the range in housing expenditures from the low- to the high-income groups of professional women is less than that of families, in both instances the amount spent rises gradually with the increase of income.

SHALL THE FAMILY RENT OR BUY A HOME?

The selection of a suitable dwelling for the family brings up the question: Shall the family rent or buy a home of its own? The satisfactions derived from home ownership make it a goal that many families set up as one they wish to attain, one that they are willing to work for over a long period of years. The fact that 48 per cent of all American families own their homes (45.2 per cent nonfarm homes and 52.5 per cent farm homes)¹ indicates that a large number of families find the satisfactions of home ownership great enough to offset the financial struggle that may be necessary.

According to Kyrk, "Home ownership is a practicable ideal primarily for village and small-town families. For a large proportion of city families renting is necessary and economically desirable."²

Since buying a home involves such a large expenditure of money, and frequently, financial obligations that extend over a period of years, the family that is considering home ownership will do well to weigh carefully the advantages and disadvantages of both renting and owning before making a definite decision.

Some of the advantages of renting are:

It usually costs less to rent than to own a home.

The family that rents never suffers a loss of capital through the decline of property values.

¹ U. S. Bureau of the Census, Fifth C, Population VI, Washington, 1933, p. 11.

² Hazel Kyrk, *Economic Problems of the Family*, p. 424.

The renting family has no responsibility for the management and upkeep of the property in which it lives.

The family that rents can move to another dwelling as housing needs change.

If the family's income is reduced, it can rent a less expensive dwelling.

If the family's income increases, it is free to move to a more desirable dwelling.

If the house is unsatisfactory, or if better housing can be found elsewhere, the family is free to move.

The renting family is not tied by the investment in a house if they wish to take advantage of a promotion or to change from one form of work to another.

Conversely, there are distinct disadvantages to renting. Some of these are:

The family that rents has nothing to show for its lifelong housing expenditures.

It is frequently difficult for the family to obtain necessary repairs on a rented house.

It is not always possible to find a house in the neighborhood desired.

When the housing supply is scarce, the renting family may have difficulty in finding a house it can afford to rent.

The family that is interested in owning a home will find many arguments in favor and against home ownership.

Some of the advantages of owning a home are:

Home ownership frequently leads to financial independence.

Home ownership gives the family a feeling of security.

The responsibilities of ownership in meeting taxes, in making financial payments, and in making repairs, etc., develop business judgment and skill.

A home owner can secure credit without difficulty.

The family that owns its own home has greater freedom to live as it wishes, without interference from a landlord.

The home owner has greater opportunity for individual expression both in the exterior and interior of the house.

The home owner has the advantage of having neighbors and friends, whose friendship lasts over a period of years.

The pride of possession usually inspires cooperation in doing work around the home and in the yard.

Better furnishings can be purchased when the home is owned, because they fit into a decorative plan that will last for a period of years, instead of having to be changed frequently as the family moves from one house to another.

Some of the disadvantages of home ownership are:

It usually costs more to own than to rent, if all costs of home ownership are accurately computed.

The struggle to meet costs of home ownership may rob certain members of the family of other development opportunities.

Ownership ties a family to a given location, since property often cannot be sold without a sacrifice.

Unless the family enjoys the cares and responsibilities of home ownership, they may prove arduous.

Property values may decline and investment in a house decrease accordingly.

In case of economic stress and reduced income the family may find itself encumbered with ownership costs out of reasonable relation to its income.

For one reason or another many families find that the advantages of owning one's home far outweigh the advantages of renting. The present and future income and probable savings of the family, however, must be carefully considered before a definite decision can be made. If the family can count on the present income over a period of years, and if the yearly costs of home ownership are only slightly more than the amount the family is paying for rent, it is reasonable to assume that they will be able to carry the financial responsibilities.

HOW MUCH CAN A FAMILY AFFORD TO SPEND ON HOME OWNERSHIP?

No matter how attractive home ownership may appear, it is unwise for any family to buy beyond its capacity to pay. Attempting to buy under these circumstances usually results in the loss of the home, or in a constant struggle to hold it. How much then can a family afford to spend for a home? And what relation should this sum bear to the income?

Lending agencies and housing experts both agree that the value of the house and lot should not exceed 2 to $2\frac{1}{2}$ times the assured annual income of the family purchasing it. Two times the annual income is suggested as a safe investment for the average family. In case of extra expenses, due to illness or other unforeseen demands, or pressure from economic change outside the home, the family that has this margin of safety is less likely to lose its home.

It is generally agreed that the total amount a family that is buying a home can afford to pay annually runs between one-sixth to one-fourth of the family income. This means that the annual carrying cost of the property should not exceed one-fourth of the income. The family that buys a home is usually able to devote slightly more of its income to shelter, than when renting, since this amount may include both rent and some of the family's savings.

The estimate of 2 to $2\frac{1}{2}$ times the income as the value of the house is based upon the relationship between costs of ownership and the proportion of income used in housing the family. The annual costs of home ownership include taxes, fire insurance, repairs, depreciation, and interest on the mortgage. Taxes on real estate vary from place to place, but they usually run from $1\frac{1}{2}$ to $2\frac{1}{2}$ per cent of the market value of the property, while fire insurance amounts to about $\frac{1}{2}$ to 1 per cent of the value of the house. Depreciation is usually estimated at 2 per cent and upkeep at 1 per cent of the value of the property. If the interest rate on the mortgage plus the equity in the property is calculated from 5 to 6 per cent, the total costs incident to home ownership would amount to from 10 to $12\frac{1}{2}$ per cent of the investment.

Thus it will be seen that, if the family is to keep the cost of home ownership to a fourth of its income, it should not pay more than 2 to $2\frac{1}{2}$ times its income for its home. If the costs of ownership are 10 per cent of the investment, the family with a yearly income of \$2,500 cannot afford to pay more than \$6,250 for a home, and if the costs run as high as $12\frac{1}{2}$ per cent the family cannot afford to spend more than \$5,000.⁸ For the family

⁸ *Ibid.*, pp. 420-421.

living on an income from investments, Andrews states that not more than 12 per cent of its capital should be transferred into a house.⁴

SHALL THE FAMILY BUY OR BUILD A HOUSE?

The family that decides to assume home ownership has the choice between buying a used or a new house, or buying a lot and building a house. Before any decision can be reached, the advantages and costs of each method must be studied and compared.

BUYING A USED HOUSE

A used house may be bought from the owner or from a real estate firm. As a general rule the cost of such a house is considerably less than that of a new house, or the cost of buying a lot and building a house, since the original owners have taken the depreciation during the years the house has been used. How good an investment such a house is depends on its location, appearance, arrangement, construction, state of repair, and whether it meets the needs of the family. If the house needs repair, or must be altered to fit the family, estimates of these costs should be added to the price asked.

Before a house is bought, the advice of an architect or competent disinterested builder should be obtained on any points of construction that are difficult to judge. In addition to this the prospective owner should take time to check on the following questions:

How long has the house been built?

Is there good drainage of the yard away from the house?

Is the foundation sound and waterproof?

Are there any noticeable cracks in the brickwork?

Are there any signs of decay in the floor beams or sills, window sills, or elsewhere?

If it is a frame house, are all the siding and cornice joints closed?

⁴ Benjamin Andrews, *Economics of the Household*, p. 248.

- Is the roof watertight and of durable material?
- Is there adequate flashing over doors and windows and around the chimneys?
- Are the eave troughs in good repair?
- Are the screens and storm windows in good condition and properly hung and fastened?
- Are there any serious cracks in the plaster?
- Do all the doors and windows work easily?
- Do all the door knobs and locks work smoothly and seem well fitted?
- Are the floor beams of sufficient size and in good condition? Are they well bridged?
- Are the joints in the floors and woodwork well fitted?
- Are the floors level?
- If there is a fireplace, does it work?
- Will the heating system work?
- What is the condition of the plumbing system?
- Are there enough lighting outlets, and are they conveniently placed?
- Do all the electric fixtures and outlets work?
- Is the interior woodwork satisfactorily finished?
- Do the walls need refinishing?
- Is the arrangement of the rooms convenient?
- Does the house meet the present as well as the probable future needs of the family?
- Is there adequate storage space in all areas of the house?
- Do all cabinet doors and drawers operate easily?
- If part of the basement is excavated, is there plenty of ventilation and some light under that part of the house?
- Is there a garage, attached or unattached?
- If the garage is attached, is there a fireproof wall between that and the house? If there is a room over the garage, is the ceiling of the garage fireproof construction? This may lower fire-insurance rates.
- Are the garage doors well braced and hung? Do they operate and lock easily?
- Is the floor of the garage concrete?
- Is the garage large enough to house your car?

Is the garage lighted? If attached to the house, is it heated so that it can be used as a workshop?

Is the landscaping adequate?^{5, 6}

If the majority of these questions can be answered in the affirmative, the purchase of the house may be given serious consideration.

BUYING A NEW HOUSE

A new house just finished may be bought from the owner, a building company, real estate firm, or contractor. When the right house can be found, this is an excellent way for those inexperienced in building to buy a new house. The materials and workmanship of the house should be carefully checked with the builders, and if there is any question, the advice of an expert should be sought. When the purchase is financed through a building and loan association or through a member agent of the Federal Housing Administration, this advice may be obtained from one of their experts. Information can be secured at a nominal rate from the Federal Housing Administration even though the loan is not made by one of its agents.

A new house under construction can frequently be bought from a contractor or building concern. This method gives the family an opportunity to make some of the final decisions without assuming the entire responsibility from the beginning. Families who have little time to spend on planning and building may find this a very convenient and satisfactory method. It must be remembered, however, that, when changes or additions made by the family exceed the builder's price, these extra costs must be added in order to obtain the total cost of the house.

BUILDING A HOUSE

A lot may be purchased and a house built according to plans made by the family, the building being done by a contractor

⁵ *How to Judge a House*, National Committee on Wood Utilization, U. S. Department of Commerce, Wood Utilization, 1931.

⁶ "New Ideas for Building Your Home," *Better Homes and Gardens*, Meredith Publishing Company, Des Moines, 1940, p. 12.

or by the day's work. Rough estimates of building costs of the type of house the family wishes can be obtained from builders or contractors, or from families who have recently built in the neighborhood. If a plan has been made and specifications drawn up, an accurate estimate of construction costs can be obtained. When a contractor is employed who has submitted a bid on the work, there is less uncertainty about the final cost of the house and less time is required for supervision than when the owner assumes all the responsibility in building—getting bids, letting contracts, hiring workers, and supervising the work. Plenty of time should be taken to consider thoroughly all that is involved in building one's own home, since there are many perplexing problems to be solved before an estimate of the actual cost can be made.

ESTIMATING THE COST OF HOME OWNERSHIP

After the prospective home owner has investigated the prices of purchasable houses and the costs of buying a lot and building a house which fits the needs of the family, estimates of the costs of buying and of building can be put down on paper and compared.

No matter which method the family chooses, the costs incident to home ownership include more than the price of the lot and house. The fees that may be charged by the Federal Housing Administration and lending agencies in arranging loans on new houses must be included as an initial cost in home ownership. Such fees and commissions usually run between 1 and $2\frac{1}{2}$ per cent of the amount of the loan. If a lot is bought and a house is built, the cost of stock plans, or an architect's fee for plans and specifications, and the cost of grading must be added to the initial input. When a contract is given for landscaping, this cost must also be added. The annual costs of home ownership which were mentioned before, taxes, insurance, depreciation, repairs, and interest on the mortgage, are the carrying costs of home ownership. In addition to these, although not a cash cost, is the interest on the money invested.

A final estimate of home ownership can be made by filling in the items in Table XXXVI. When a used house, a new

TABLE XXXVI
ESTIMATING THE COST OF HOME OWNERSHIP

Initial input	
Cost of lot.....	
Cost of stock plans and specifications.....	
or architect's fee for plans and specifications.....	
Cost of house, including grading and landscaping.....	
Fees charged for arranging loan, 2%.....	
<i>Total cost</i>	
 Annual costs	
Interest on mortgage (current building rate).....	
Interest value on money so far invested in house (current investment rate).....	
Taxes, 1½-2¼% of market value.....	
Insurance, fire, tornado, ¼-1%.....	
Depreciation, 2%.....	
Repairs, 1%.....	
<i>Total cost</i>	
<i>Monthly cost</i>	

house just completed, or a house being built is purchased, the quoted price includes all the items listed under "Initial input," except the fees charged for arranging the loan, which must be met by the buyer. When a lot is bought and a house is built, the owner himself must pay all the individual costs listed under initial input. The annual costs must be met by all home owners.

If the monthly costs of buying or building run more than 2½ times the income, it will be unwise for the family to consider home ownership unless costs can be lowered, since any investment beyond that point is economically unsound. Frequently a better buy in a used or new house can be found, or building costs can be reduced. If this is impossible, family members may find it necessary to accept different standards of housing, if they hope to become home owners. When the estimates show that the costs of purchasable houses run considerably less than the costs of building a new home, the family often finds it wiser to buy, rather than to reduce building costs to the point where standards must be sacrificed.

METHODS OF FINANCING HOME OWNERSHIP

The family, having decided that home ownership is economically and psychologically sound, next progresses to a con-

sideration of the ways to finance the buying or building program. There are three methods of financing home ownership: (1) cash, (2) cash and credit, and (3) the contract method.

CASH

The good fortune of being able to make an outright and complete cash payment for a home is a method not open to many home owners, for the obvious reason that few have an amount of cash on hand large enough to allow this method of purchase.

CASH AND CREDIT

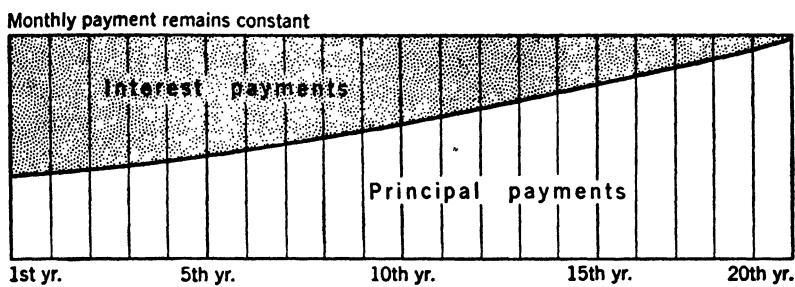
By far the majority of persons wishing to become home owners use the method of cash and credit in paying for their home. With a reasonable amount of cash, a good reputation, and steady employment, it is not difficult for the prospective owner to find a person or an agency eager to lend the remainder of the amount needed. Loans made on real estate are insured by the legal credit instrument, the mortgage. Three types of mortgages are commonly used in financing home ownership.

The *amortized mortgage* is a credit instrument which indicates that a sum of money has been borrowed, the terms of repayment of which are in regular amounts at stated intervals, usually monthly, or at other designated time periods. As each payment is made, a portion of the sum paid is allocated to the principal and the remainder to interest. As payments proceed, the amount going to principal gradually increases and the amount allocated to interest decreases correspondingly (Figure 26). These amounts are worked out, in table form, on the basis of a given amount per \$1,000, at a given interest rate, and can be furnished by the lending agency to the borrower upon request. Thus a loan carrying a 6 per cent interest rate, amortized at the rate of \$10 per \$1,000 per month, is usually liquidated in 10 to 11 years. The amortized-mortgage holder has first lien on the property, which means first claim for payment in case of sale of the property. (See Appendix for Amortization Table.)

The *first mortgage* is a legal instrument registering a loan on real estate, at a given interest rate, and for a specified period

of duration with a maturity date indicated. The first mortgage has first lien on the property in case of sale. The usual maximum amount allowed for a first mortgage is 50 to 60 per cent of the value of the property, depending upon the general condition of the money market and ease in securing credit.

The *second mortgage* is a legal credit instrument indicating that a loan has been made upon a piece of real estate and it too carries a specified interest rate, and indicates the duration and maturity date of the loan. Legally it differs from the first mortgage in that it has second lien on the property and is paid



Home Information Service, Better Homes in America, Purdue University, Lafayette, Indiana, Bulletin 1 (January, 1936), p. 17.

FIGURE 26. Method of mortgage payment.

after the first mortgage in case of sale. Because of the greater risk involved in its payment, the interest rate of the second mortgage is higher than the first and the duration is shorter. Thus, when a first mortgage on a property carries an interest rate of 6 per cent, a second mortgage on the same property will usually carry 8 to 9 per cent and may run as high as 12 per cent. When the first mortgage extends over a period of 5 to 6 years, the second will extend for a shorter period, usually for 3 years.

Of the three ways of financing a building program by cash and credit, the first combination, cash and amortized mortgage, is thought to be the easiest method for the borrower. Most families receive their income in biweekly or monthly installments and thus find paying for the home by monthly payments of principal and interest easier than larger payments once or twice a year. In this connection the home owner using this type

of payment must remember that the monthly payment does not always cover the total cost of ownership, since the taxes, insurance, depreciation, and upkeep costs may not be included. In fact, the monthly payment does not include these items unless by contract the lending agency assumes the cost and computes them as part of the monthly sum. In a Federal Housing Administration insured loan, this may be and usually is done.

Financing by the second combination, cash and first mortgage, is not possible for many individuals because the amount of the first mortgage usually has an upper limit of 60 per cent of the value of the property. This would mean a cash input of 40 per cent of the value of the property, which is a larger sum than is possible for most home owners to amass before starting their building program.

The third combination, cash and first and second mortgage, is deemed by most authorities the most difficult and costly of the three combinations for the average home owner, since it is not easy to locate second-mortgage money at fair terms, and if found is likely to be a very costly privilege.

THE CONTRACT METHOD

The contract method of financing the buying or building of a home is usually the most costly and uncertain of all. It differs from the other methods in that the deed to the property remains in the name of the seller until a certain percentage (usually 50 per cent) of the purchase price has been paid. This means that the seller has the legal right to the property and in an emergency or a period of financial stress when payments are difficult to meet and may have to be discontinued the buyer may lose all he has paid on the property.

Difficulties may also arise concerning the title to the property, since the seller may legally contract to transfer title to property which he does not own when the contract is executed. The buyer may protect himself against such a contingency by placing the deed in the hands of a bank, acting as a third party, which takes the responsibility for applying the buyer's payments properly and delivers the deed to him at the agreed time.

The contract method is characterized by a relatively small

cash-down payment, and it usually carries a high interest rate because of the risk carried by the seller. Since the establishment of Federal Housing Administration insured mortgages, the contract method has been replaced in large measure by the new method of financing.

The major advantage of financing the building program by any one of the combinations of cash and credit over the contract method is that in the former the owner has the deed to the property and in the event of necessary sale may retrieve a part or all of his equity.

BUILDING CREDIT

BUILDING AND LOAN ASSOCIATION

The building and loan association is a cooperative organization developed for both saving and lending for building purposes. Briefly stated the association operates as follows: Shares are sold to individuals wishing to invest their money. The shares may be purchased with outright cash payment or they may be contracted for and paid for in installments, usually monthly. With a capital fund thus built up the people wishing to build may borrow from the fund on terms laid down by each association. The home owner who becomes a borrower may have paid for his shares through time or in a lump sum. In either event the shares have a cash value which he uses as the cash input in his house. The remainder he borrows from the association in the form of an amortized mortgage, which carries a given interest rate and is liquidated at a specified amount per thousand per month.

The interest paid on the loans by borrowers represents the earnings of the association. The share owner who does not use his shares as cash for building purposes, but leaves his money in as an investment and allows others to borrow it for building, is paid a return on his money in the form of dividends. The amount of the dividend payment to shareholders depends upon the extent and quality of the association's loan operations, upon the excellence of management which governs the operating costs, and upon economic conditions which affect the borrowers' ability to repay their loans.

Building and loan associations operate under laws of individual states plus regulations imposed by the local associations upon themselves. Whether buying shares as an investment with no plan to use the sum for building or whether buying with a plan for a future building program, the investor will want to investigate thoroughly the association's management and its lending policies in respect to: (1) the amount of cash input required before a loan is extended; (2) the territorial coverage of loans—town only, county only, or outside the general locality; and (3) interest charges. The history of the operation and dividend payments throughout a total business cycle should be investigated.

Other sources of credit also open for building purposes with the type of mortgage used are listed below.⁷

LENDING AGENCIES	TYPES OF MORTGAGE USED
Building and loan associations	Always amortized
Banks	Amortized, or first, or first and second
Private home loan companies	All three types
Personal loans	All three types
Trust companies	Usually first
Insurance companies	Usually first
Commercial companies, lumber companies	Usually amortized

AMOUNT OF CASH NEEDED TO FINANCE HOME OWNERSHIP

The amount of cash the buyer will need, assuming that a cash and credit method of financing is used, ranges from one-tenth to one-third (10 to 33½ per cent) of the value of the property. If he chooses or is forced to build with a small amount of cash, he has two paths open to him. Either he will need to secure his loan from an agency which is associated with the Federal Housing Administration, which means that his loan is insured by the government and he is able to get a loan with less cash, or he must resort to the contract method of purchase in which he does not receive title or deed to his property until later.

If the amount of cash the buyer has available equals one-

⁷ For full discussion of the other sources of credit, see pages under "Credit."

fourth to one-third the value of the property he can still finance through the Federal Housing Administration or he can be quite independent of government insurance, for the 20 to 25 per cent of the value of the property in cash is considered a financially sound amount of cash input upon which to extend a loan for home ownership. Some lending agencies, however, require up to 30 to 40 per cent cash input before extending a loan. These are likely to be agencies that have rather heavy demands for their funds. With 20 to 25 per cent cash, the rest of the building money can be financed through an amortized mortgage or a combination of first and second mortgage.

Thus a family building a \$5,000 house would need to have at least \$500 in cash if it finances its buying or building through an agency that is accredited by the Federal Housing Administration, or \$1,000 to \$1,250 if it wishes to finance the program independent of government aid.

GOVERNMENT AID TO FAMILY HOUSING

The government agencies concerned with the financing of family housing are the Home Owners Loan Corporation, the Federal Housing Administration, and the United States Housing Authority described in Chapter XVIII.

The Home Owners Loan Corporation which functioned between 1933 and 1936 is the only government agency that has ever made money loans from the government directly to individual home owners. Through this agency the government granted 200 million dollars in cash and the right to issue 3 billion dollars in bonds. The measure was purely an emergency one operating to refinance on a long-time basis, at moderate interest rates, the home mortgage indebtedness of individuals faced with loss of their homes through foreclosure or tax sale. Loans were made up to 80 per cent of the appraisal value of the property of the applicant, interest rates were 5 per cent, then reduced to 4½ per cent, and amortization of loans was over a 15-year period, but was later changed to 25 years. No applications for loans were received after June, 1935, and lending operations ceased altogether in June, 1936. Since then the agency has been engaged in servicing its loans, and in manage-

ment and sale of its acquired properties. As previously stated, the agency is now directed by the Federal Loan Bank Board.

The Federal Housing Administration does not lend money to private individuals, or clear slums, or build houses, but it does ensure qualified agencies against complete loss from loans. It does this through insured mortgage loans made under Federal Housing Administration regulations. The loans are made by the local lending agency, the bank, building and loan association, or other financial organizations approved by the Federal Housing Administration. Application for loans are made by the client to the local lending agency and are passed first by that group. All terms of the loan are between lender and borrower but within the regulations set up by the Federal Housing Administration.

The insurance may cover loans for modernization of old houses which are not in the form of mortgages, and it may cover regular amortized mortgage loans. Both must receive the approval of the Federal Housing Administration. Loans on modernization may extend up to \$2,500, and for building or purchase may extend to \$16,000.

When first established the Federal Housing Administration insured loans up to 80 per cent of the appraised value of the borrower's property and required 20 per cent equity. Later this was changed to the insurance of loans up to 90 per cent of the value of the property with a 10 per cent equity on newly constructed owner-occupied single-family houses with a mortgage of \$5,400 or less. For the building of larger houses or for buying houses, 20 per cent cash is still required. The interest rate cannot be more than $4\frac{1}{2}$ per cent plus $\frac{1}{2}$ per cent mortgage insurance premium. The mortgage loans are in the form of amortized mortgages repayable in monthly installments. Builders of small single-family houses are allowed as long as 25 years to repay their loans; other insured mortgages may extend up to 20 years. The monthly payment may include taxes and other fixed charges such as insurance, depreciation, and upkeep. This makes the monthly payment comparable to a monthly rent.

The Federal Housing Administration has upon its staff spe-

cialists in the various areas of building who check on the borrower's rating in relation to requirements set up by the agency, such as the cost of the house in relation to the borrower's ability to repay his loan, the design of the house in relation to the neighborhood and locality, and also certain construction inspections which safeguard the soundness in building the house and materially safeguard the home owner's investment.

The United States Housing Authority provides financial assistance to legally constituted public housing agencies (usually local housing authorities) to help them in improving housing conditions for the underprivileged in these localities through developing low-rent housing and slum-clearance projects. These projects are designed, built, and operated on a rental basis for this group by the local authorities. The housing thus provided requires that there be dwellings which (1) must not cost more than \$5,000 per unit or \$1,250 per room to construct, (2) must be accompanied by the destruction or repair of the same number of substandard dwellings, and (3) must be rented to families with incomes not over five to six times the rent, including utilities.

To legally constituted local housing authorities making application, financial assistance may consist of three possibilities:

1. Repayable loans which may equal 90 per cent of the total development cost.
2. Annual grants-in-aid designed to bring rentals within reach of the families in the lowest income group living in the slums at the present time.
3. Capital grants up to 25 per cent of the cost of the project.

Applications for aid are made directly to the United States Housing Authority in Washington, and all contracts for loans or grants are subject to the approval of the President of the United States. The United States Housing Authority may lend up to 800 million dollars on a 60-year basis to local public housing authorities and afterward contribute up to 28 million dollars to these authorities as subsidies.⁸

Like the Federal Housing Administration, the United States

⁸ United States Housing Act of 1937 (Wagner-Steagall Act).

Housing Authority exercises some supervision over the projects to which it lends aid to ensure certain outcomes. These may be summarized as follows:

1. That projects will reach low-income families living under substandard conditions.
2. That the equivalent number of substandard dwellings are demolished.
3. That at least 10 per cent of the development costs are secured from other than government funds.
4. That the local authorities match the annual federal grants on the basis of 1 to 5.
5. That costs are within the limitations of the United States Housing Act and that all other provisions of the Act are observed.

A frequently expressed fear is that these projects will not reach the families for which the government intended improvement. This has been somewhat safeguarded, however, by the Authority's careful specifications for tenant selection.

LEGAL INFORMATION NEEDED BY RENTERS AND HOME OWNERS

The housing of the family and the finances connected with it can be handled more skillfully and intelligently if the family is familiar with the legal responsibilities and procedures involved in renting and owning a home. Information concerning the legal responsibilities existing between tenant and landlord and the most desirable form of lease is important to families and individuals who rent. Families who own their own home, or those who are considering buying or building, need to understand the procedure employed in the legal transfer of property, the obligation to the city, county, and state involved in home ownership, and the legalities of building permits, contracts, and agreements. All legal documents should be carefully read and thoroughly understood before they are signed.

LEGAL INFORMATION FOR RENTERS

All families or individuals who rent must agree to pay the owner or landlord at a stated time, or times, for the use of the property. The agreement entered into between the landlord

and tenant is known as a lease. A lease is a contract by means of which the owner grants to the renter the use of the property for a definite consideration known as rent, for a specified period. The lease may be a verbal agreement or it may be a written document containing all the provisions and covenants agreed upon.

Periods of rental vary according to circumstances. Occasionally property is rented for one month only. This type of rental is self-renewing unless the landlord wishes to terminate it. The tenant is not bound to give notice, but may leave at the end of any month he may wish. Sometimes property is rented for indefinite periods. When this is done the tenant agrees to pay a certain rent, at stated intervals, usually monthly, but no period of time is stated. The agreement can then be terminated upon one month's notice by either the landlord or renter. In many communities the lease is for a definite period of a year or longer. In this case the tenancy for a year ends without notice on the last day of the period of the lease.⁹

LEGAL INFORMATION FOR HOME OWNERS

When either a house or a piece of land is bought, the buyer must be sure that he is acquiring a clear title to the property. He must have both an abstract and a deed which transfers absolute title to the realty.

ABSTRACT OF TITLE

Before realty is transferred, an abstract showing all the transactions that have been made in connection with the property from the time it was granted from the government down to the present transfer should be made by an abstractor who understands real estate law. If an abstract is in existence and has been used before in transferring the title to the land purchased, it merely needs to be brought up to date. Information concerning all such transactions is secured from the public records in the county court house. An abstract shows who holds the title of the property and any liens that may be on it.

⁹ Phillip A. Benson and Nelson L. North, *Real Estate*, New York: Prentice-Hall, Inc., 1926, pp. 128-139.

LIENS

A lien is a legal claim upon a piece of property until a debt or charge upon it is paid. Unpaid mortgages, taxes and assessments, mechanic's liens, and court judgments are considered liens.¹⁰

A mortgage is a lien on a piece of property for the purpose of securing payment of a debt or of money due the lender. As soon as the mortgage is paid, the lien becomes void. If the owner is unable to pay the mortgage as agreed, or to renew it, the holder of the mortgage may bring legal action against the owner. Upon the sale of the property, the lender or mortgagee may then be paid his expenses and claim against the owner.

Taxes and assessments on real estate which are not paid become a lien on the property, and if left unpaid, the taxing body may sell the property to pay them. In order to get a clear title to real estate, all unpaid taxes and assessments must be paid either by the original owner or the purchaser.

Mechanic's liens are sometimes filed against the property. Such a lien is given to those who perform labor or furnish material in the improvement of real estate. Before a newly built house is purchased it is well for the buyer to check carefully to be sure that all payments for materials and work have been made. If there are liens on the property, a satisfactory adjustment should be made before the property is bought.

Legal or court judgments for the payment of money, when recorded, become a lien on all property owned by the person against whom judgment is brought. Such property may be sold by an officer of the court in order to satisfy the judgment.

DEEDS

The title to real estate is acquired by means of a deed, which is the written legalized evidence of the transaction between the owner and the buyer. A deed is an executed contract as soon as it has been signed by the grantor and delivered to the grantee, or new owner. If the seller is married, it is customary for the wife to join as a grantor, thereby releasing her right of dower.

¹⁰ *Ibid.*, pp. 15-37.

There are various kinds of deeds. They range from the highest form, the full covenant and warranty deed, down to the lowest, the quit-claim deed. With the exception of the last, each form contains one or more covenants designed to benefit the buyer.

A full covenant deed contains six covenants, or future guarantees, which set forth the rights and protection of the buyer of the land. A full covenant and warranty deed is the most desirable form known to law, but a deed of general warranty, which contains fewer covenants, is generally acceptable. In taking either deed the buyer should make sure that it contains a covenant against encumbrances. These include the various forms of liens previously discussed.

A bargain-and-sale deed is a contract based on an agreed price and it is used to convey land from the owner to the buyer. A quit-claim deed is used by an individual to release a small interest or claim to a piece of property. Its chief purpose is to settle disputes and to make the title clear.

When the buyer is able to pay cash for the property, the transaction may be closed and the deed given immediately to the buyer. It should then be recorded at the court house in the county in which the property is located. If the buyer does not have sufficient cash to pay the entire purchase price, he may pay part cash and give a mortgage for the unpaid balance. When this method of purchase is used, the deed to the land is executed and delivered to the buyer or his representative and a mortgage is given by the buyer to secure the payment of the loan on the property. After the deed and mortgage are recorded, the mortgage is held by the original owner until final payment is made.¹¹

When the loan or mortgage is paid, the mortgage is given to the buyer and also a "satisfaction of mortgage," a formal instrument which describes the mortgage and states that it has been paid. When this is signed by the mortgagee, it should be recorded in the court house.¹²

¹¹ For a more complete discussion of deeds see Benson and North, *Real Estate*, Chapter VII, and John B. Green, *Law for the Home Owner*, Chapters VII-VIII.

¹² Benson and North, *op. cit.*, pp. 97, 271.

BUILDING PERMITS

The city, through its power to enforce building regulations and restrictions, may lawfully require a land owner to obtain its permission before he erects a building within its boundaries. Application for such a permit should be made after the lot has been purchased and after the plans and costs of the house are known.

CONTRACT BETWEEN THE OWNER AND CONTRACTOR

The contract which covers the agreement between the contractor or builder and the owner is another legal document that must be signed by the home owner. A contract for the construction of the house is important if work is to be done without misunderstandings and legal entanglements which may result in the loss of money to the owner.

Suggestions for the preparation of such a contract follow: Contract documents include the *agreement* between the contractor and the owner, the *general conditions*, the *specifications*, and the *working drawings*. Before these documents are prepared, the laws of the state and the regulations and ordinances of the particular community covering building operations should be consulted. It is also important that these documents be properly prepared and filed as a protection to the owner against possible losses which might result from failure to present them to the proper local authority.

In preparing these documents, provisions should be included for each part of the building process as well as definite statements concerning the respective responsibilities of all persons signing the contract. Since these documents form the basis upon which all work is done and all costs are figured, they must be specific and complete.¹³ The specifications which describe the work to be done and the quality of materials and workmanship are discussed in Chapter XVIII.

¹³ "Contract Documents for Small House Construction," p. 2. Federal Housing Administration, *Technical Bulletin* 3. Revised February 1, 1938. (A copy of the A.I.A. Short Form for Small Construction Contracts is given in this *Bulletin*, p. 4.)

CONTRACT BETWEEN OWNER AND ARCHITECT

If an architect is employed to prepare plans and specifications and supervise the work, an agreement must be signed between the owner and the architect. Such an agreement describes both the services and fees of the architect.¹⁴

¹⁴ The standard form of agreement between owner and architect has been issued by the American Institute of Architects for use when a percentage of the cost of this work forms the basis of payment. Second Edition, Copyright 1917 by the American Institute of Architects, Washington, D. C.

CHAPTER XX

SELECTION OF HOUSING FOR FAMILY NEEDS

Families and individuals that rent are confronted with the problem of finding a desirable neighborhood and choosing a house or apartment that meets their needs and that they can afford. Those who plan to build a house have similar problems in selecting a building site and in making plans for a house the total cost of which will not exceed the amount they have decided they can spend.

CHOOSING A LOCATION

A number of things must be taken into consideration in choosing the general location of a home, especially if the family expects to build and live in a locality permanently. In comparing the different locations, the following factors should be carefully studied in the light of the family's needs and desires: the surroundings; the type of houses in the community; the desirability of the neighborhood; the reputation and scholastic standing of the local schools; the nearness to work, schools, shopping, and recreation centers. If there are building restrictions and zoning regulations they should also be investigated, since such ordinances usually determine the possible future development of the residential district. Other important factors to be considered are the public utilities and the protective services offered to home owners in the form of fire and police protection, sanitary provisions, street lighting, and traffic regulations.

RENTING A HOUSE OR APARTMENT

After a desirable locality has been found, the family or individual that rents has the problem of deciding whether to live in a house or an apartment. The one-family house which stands alone makes the ideal housing for the family with children,

since it gives greater privacy and freedom for the members of the group. The renting of a house carries with it the responsibilities for the care of the house and grounds, including the purchase of equipment for taking care of the yard.

The semidetached two-family house, or duplex, has many of the advantages of the single house. Privacy in this type of dwelling is best secured when entrances are widely separated and when common walls are well insulated. The row houses which are single houses with common party walls are most livable when the houses are built only two rooms deep. This arrangement gives direct exposure to street and rear yard for each room, even though cross ventilation is lacking.

The apartment house, furnished or unfurnished, frees the family from the responsibility for the care of the house and property. This type of housing is most suitable for families without young children, for those who must move frequently, for those who dislike living alone in a separate house, for working couples, and for single persons living as a family, such as a congenial group of men or women.

SELECTING A BUILDING SITE

The family that plans to build has the problem of finding a building site. In choosing a site, both the cost of the lot and the probable cost of grading and filling are important, since these costs affect the amount that can be spent on the house. If too great a proportion of the building money is put into the lot, or if the lot is an expensive one on which to build, there will be less money left for the house itself.

How much can be spent for the lot? The answer to this question depends largely on whether or not the lot is "improved." If streets, curbing, sidewalks, water, electric, gas, and sewage improvements have not been made, a lot may often be bought for less than 5 per cent of the total cost of the house and lot, and 10 per cent should probably be considered as the upper limit.¹ It is well to remember, however, that a well-built house

¹ Blanche Halbert, *The Better Homes Manual*, Chicago: University of Chicago Press, 1931, pp. 90-91.

on an inexpensive lot is far more desirable than an unsatisfactory house on an expensive lot.

The building site has a definite influence upon both the plan of the house and the cost of building. A site which is reasonably level permits the use of almost any plan, while a rolling or hillside site usually requires the making of a special plan. This often calls for the services of an architect, an extra cost which must be taken into consideration in buying the lot. The size and shape of the lot and the direction it faces also affect the plan of the house. Before buying a lot a family will find it desirable to check the following questions:²

How large is the lot?

Is it a desirable shape?

Does the "lay of the land" make it an expensive lot on which to build?

Is the lot well drained?

Has the lot been filled in?

Which way does the lot face?

Where are the building lines? What distance must the house be placed from the street and other borders of the lot?

Are all the utilities—water, gas, electricity, sewage, and telephone—available?

How much are the yearly taxes and special assessments on the lot?

On what terms can the lot be bought?

WHAT ACTIVITIES MUST BE PROVIDED FOR IN THE HOUSE?

A house should provide a place for the social and recreational activities of the family, for the work of the household, and for the personal activities of each individual member of the family. In most houses certain rooms and spaces are used for these family activities. In the larger houses several rooms may be given over to each of the major activities; in smaller houses and apartments one room often serves more than one purpose.

The family activities which must be provided for and

² John Normile, "Building Your Home," *Better Homes and Gardens*, 1941, p. 67.

**FAMILY LIFE AND ACTIVITIES AND ROOMS AND SPACES IN THE HOUSE
AND SURROUNDINGS USED IN EACH ACTIVITY**

Activities	Rooms and Spaces Used
Social and recreational activities	
Sitting	Entrance hall
Relaxing	Closet for wraps
Visiting	Living room
Reading	Dining room
Listening to radio	Study
Playing games	Recreation rooms—workshop
Entertaining	Sunroom
Writing	Living room
Instrument-playing	Terrace
Child play	Library
Dancing	Den
Hobbying	Parlor
Eating	Upstairs living room Music room Play space in yard
Household activities	
Ordering on telephone	Kitchen
Preparing and serving food	Breakfast nook
Storing food supplies, utensils, equipment, tools, clothing	Sewing room
Caring for children	Laundry
Sewing	Drying space
Laundering	Service hall
Cleaning	Service porch
Running furnace	Service yard
Bill-paying	drying yard
Account-keeping	garbage and waste disposal
	delivery entrance
	garage and drive- way
	Utility or furnace room
	In a farmhouse
	Office
	Washroom
	Storage space for work clothes
	Milkroom
Personal activities	
Napping	Halls
Resting	Bedrooms
Sleeping	Sleeping porch
Bathing	Bathroom
Toileting	Closets
Dressing	Dressing room
Undressing	Study or living room Nursery Porch for sunbaths

the rooms and spaces in the house and surroundings which are used appear in the preceding chart. Very few houses include all the rooms and spaces listed, and some are found only in the farmhouse. An analysis of this chart shows that houses are divided into three activity or functional areas: the social and recreational activity area, the household activity or work area, and the personal activity or rest area.

In the family house of average size, the living and dining rooms are the rooms most generally found in the social and recreational areas. The kitchen, service halls, and laundry are the rooms most frequently included in the work area, and the bedrooms and one or more bathrooms and storage closets make up the rest area. In the majority of small houses the largest amount of space is devoted to the rest and social areas and the smallest to the work area. In the farmhouse more space is usually given to the work area than in the city house. Recreation or play areas are sometimes planned as separate rooms in the basement and attic, or on the first floor by families who have use for such space. In small houses recreational space is usually provided for in the living room, dining room, a breakfast nook, the corner of the kitchen, or the garage.

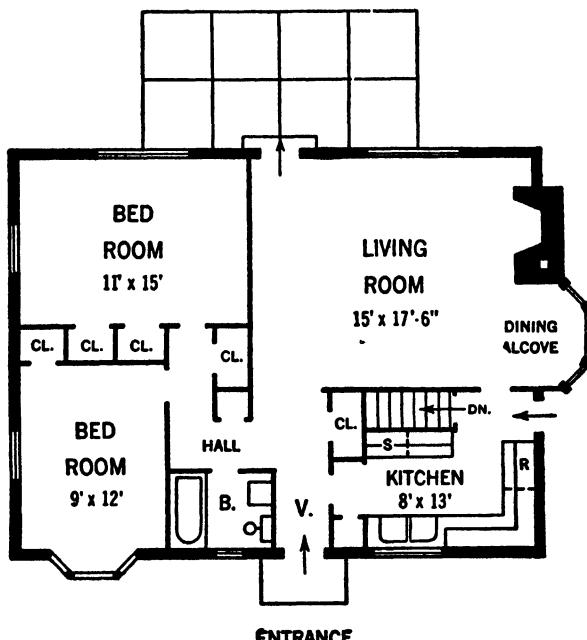
RELATION OF THE ACTIVITY AREAS OF THE HOUSE

The essential quality which makes a house livable and usable is the arrangement of the main activity areas. These areas should be arranged in such a manner as to facilitate comfortable living and permit household operations and activities to be conducted easily and efficiently. Effective communication between the different areas in the house is achieved through the wise use of doors and the convenient placement of halls, stairways, and passageways. Doors provide the most direct communication between rooms, and halls and stairways make it possible to reach the various rooms in the house with a degree of privacy and usually without passing through other rooms.

The house plan should afford entrance into the house without too much intrusion into the family life in any area. This is usually made possible by means of front and rear entrance halls

which connect with the circulation routes between the different areas of the house.

In order to provide easy movement throughout the house, the various parts of the social and recreational areas should be



Courtesy of Samuel Glaser, Architect, Designs for 60 Small Houses.

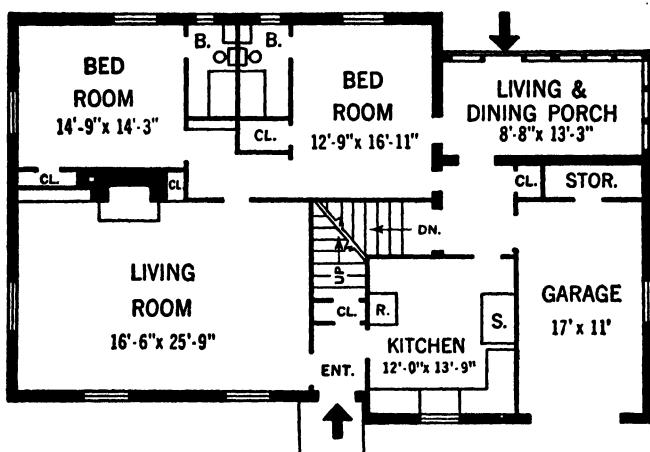
FIGURE 27. The hall space in this compact plan provides easy movement throughout the house. The living and dining areas have been skillfully combined. Step-saving routes from the kitchen to other parts of the house have been carefully planned. Excellent storage space is provided in each area.

closely related to each other as well as to the other areas of the house. The living room should connect directly with the dining room and kitchen, or by means of a hall. The entrance hall and the stairway and hall should relate to the living room to permit the easy going and coming of members of the family and their friends.

The relation of the work area to the rest of the house is important because of the numerous trips that must be made from this area to the other rooms and outside doors. Short direct traffic routes to the dining room, the living room, play

space, rest area, front and rear doors, and the garage save steps for everyone in the family, and especially the homemaker.

Since privacy and quiet are sought in the rest area a hall which separates this area from the social and recreational areas is desirable in a one-story house, or in any house which has a bedroom downstairs. (See Figures 27 and 28.) In a two-



House for Paulena Nickell. W. H. Badgett, Architect.

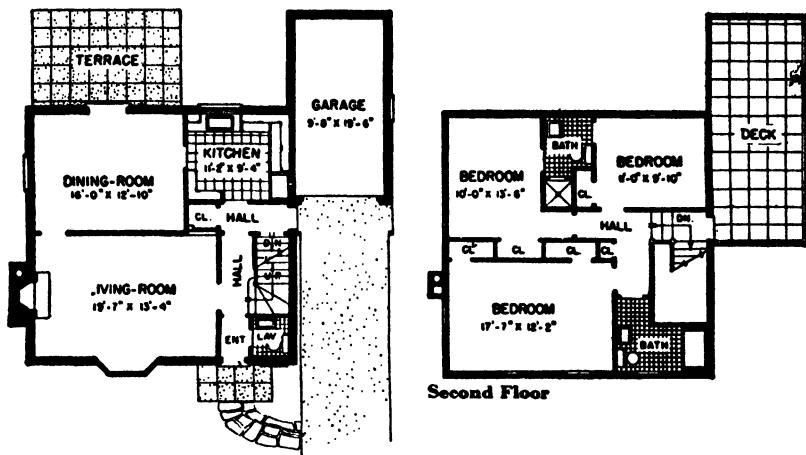
FIGURE 28. This plan is a good example of the utilization of all available space. Good circulation routes have been established through the wise use of halls and doors. Dining space has been provided in the living room, the living porch, and in the kitchen. The bedrooms are on the side away from the street, and each has a bathroom. The garage opens into a small service hall which connects not only with the kitchen, but also with the porch, bedroom, and basement. Excellent storage space has been planned throughout the house. Expansion is provided for on the second floor.

story house, the stairway and the hall upstairs give access and privacy to this area. The maximum privacy in the rest area is achieved when the bedrooms connect directly with the hall. When the upstairs hall is used primarily as a passageway, it may be reduced to a minimum in order to provide the maximum amount of space in the other areas.

In a two-story house the location of the stairway needs to be given thoughtful consideration. In many houses a stairway near the front door is desirable, since this location provides direct access to the rest area on the second floor. (See Figures 29 and

30.) When space must be economized, the front entrance is often made directly into the living room and the stairway is then sometimes made a part of the living room. When this must be done, care should be taken to locate both the entrance and stairways so that the major part of the living room is not used as a hall or passageway. (See Figure 31.)

When there is only one bathroom it should be convenient in location to all the bedrooms and the entrance to it should be

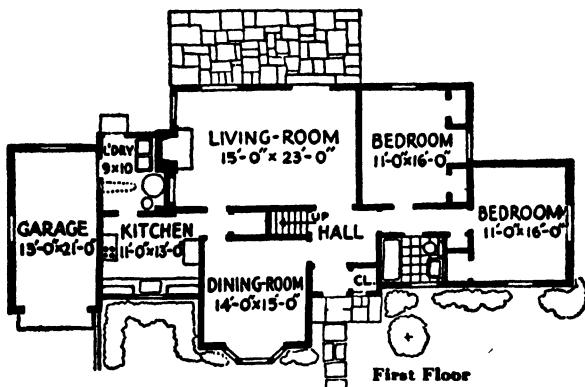
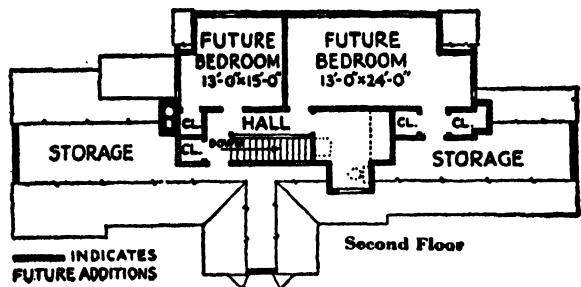


First Floor

Courtesy of *Better Homes & Gardens Magazine*.

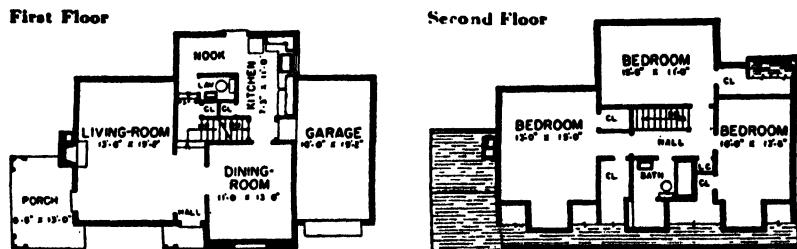
FIGURE 29. The halls in this plan provide access to all areas in a simple direct manner. The covered way from the garage to the house gives protection. The location of the garage makes it possible for the side door to be used as an entrance both from the garage and to the kitchen. This arrangement gives excellent wall space in the kitchen. The lavatory is conveniently located on the first floor, while a shower is included in one upstairs bathroom and a tub in the other.

from the hall. A conveniently placed lavatory on the first floor or in the basement is highly desirable. The laundry may be located on the first floor or in the basement, or facilities may be provided in the kitchen. In many homes the laundry is in a separate room adjoining the kitchen. (See Figure 30.) When there are small children, the playroom or play space should be located within easy reach of the kitchen so that the mother can keep a watchful eye on the children while she attends to other duties. (See Figures 31 and 32.)



Courtesy of *Better Homes & Gardens Magazine*.

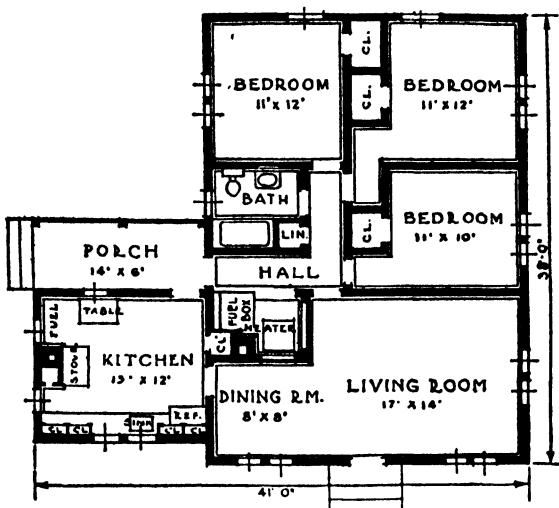
FIGURE 30. The house has good circulation routes between the social, work, and rest areas. The living room is at the rear of the house and away from the street. The laundry is in a room adjoining the kitchen. The upstairs, which is unfinished, shows the arrangement for future bedroom space.



Courtesy of *Better Homes & Gardens Magazine*.

FIGURE 31. Good circulation is achieved in this plan by the location of entrances and inside doorways which save space usually given to halls. This is an excellent treatment of a front entrance which opens into the living room. The two-way approach to the stairs makes the rest area easily accessible from both the living and work areas. The attached garage, the lavatory, and breakfast nook are other fine features of this plan.

Every house should have adequate, well-designed, and properly located storage spaces.⁸ The following points are offered as



L. J. Smith, State College of Washington, Architect. *Farmers' Bulletin* 1738. United States Department of Agriculture.

FIGURE 32. This farmhouse plan is designed to meet the needs of the farm family. Good circulation routes have been established by means of rear entrance doors into both the kitchen and rear hall. The hall provides access to the bathroom, rest area, living room, and dining room. The doors in the kitchen are placed so that kitchen activities are not interrupted by passage through the kitchen. Three outside walls in the kitchen give good light and ventilation and a fine view of the farmstead and highway. Laundry space may be provided on the rear porch or in the basement. The end of the living room next the kitchen serves as a dining room, and when additional space is needed the dining table may be extended into the living room. Dining space is also provided in the kitchen. A heater room on the main floor near the rear entrance makes a basement heating room unnecessary. In climates where a basement is necessary, this space may be used for the stairway.

a general guide in checking closet and storage facilities in a given floor plan:

A closet on the first floor as near the main entrance as possible.

If there are children, a closet near the rear door for play clothes.

⁸ Maud Wilson and J. Robert Dodge, "Closets and Storage Spaces," *Farmers' Bulletin* 1865, United States Department of Agriculture, 1940.

In the farmhouse a closet or wall space near the rear entrance for work clothes.

A closet for bed linen, bathroom towels, and blankets located in the hall convenient to the bathroom and bedrooms.

A closet for every bedroom, and if the room is used by two persons a second closet is desirable.

Kitchen cupboards and drawers ample for the storage of china, kitchen utensils, and food supplies.

Closets for cleaning equipment and supplies in the kitchen or rear hall and on the second floor.

Basement storage space for food and supplies that the homemaker draws upon from day to day.

A closet or cupboard in the dining room for storing china, silver, and electrical equipment.

A closet or cupboard for storage space in the living room.

A closet for the storage of sewing equipment and supplies.

A storage space for children's play equipment, garden tools, etc., on the rear porch or in the woodshed or garage.

In the majority of homes the automobile is so much a part of the family's daily life that it should be within easy reach of the house. The garage may be placed so that it is convenient to the front or side entrance, or it may be attached to the house with a direct entrance from the house to the garage. When this entrance is made by means of a hall, the coat closet and other areas of the house are usually more easily accessible than when the door opens into one of the rooms of the house. The garage near the house affords easy access to the street and decreases the length of the driveway. This arrangement allows more space at the rear portion of the lot to be used for lawn, garden, and recreational activities.⁴ (See Figures 28, 29, 30, and 31.)

DOORWAYS AND WINDOWS

Since doorways provide access to the different areas of the house, great thought should be given both to their location and to the direction in which the doors swing. Doorways establish traffic routes, and, if improperly placed, they may cause annoy-

⁴ Benjamin Franklin Betts, "Planning the Small House," *Better Homes in America*, Purdue University, Lafayette, Vol. 2, No. 31 (July, 1937), pp. 13, 14, 22.

ance and interrupt activities in progress. Doors which open in the wrong direction are inconvenient to use and frequently take up valuable wall space in the room.

The location of windows, is important from the standpoint of light, ventilation, appearance, both inside and outside of the house, and intervening wall space. Well-proportioned wall spaces between windows should be sought in each room in order to give ample space and a pleasing background for the necessary pieces of furniture. The grouping of a number of windows is often desirable when the view from the house is one that is enjoyed.

WHAT KIND OF HOUSE DOES THE FAMILY NEED?

Before a house or apartment is rented, or before a plan for a new house is selected, the housing needs of the family should be given careful consideration. The size and composition of the family, the family's living habits, the activities to be carried on in the household, the space needed for articles of furniture, and the family's future housing needs all affect the amount and kind of space required for housing the family.

The size and composition of the family have an important bearing upon space planning in all activity areas in the house, since the plan should fit the family. The number and sex of the children will determine to some extent the number and size of the bedrooms, and the presence of others not members of the immediate family may mean additional space in certain areas of the house. A second bathroom or extra lavatories may be needed if the family is large.

When the money will not allow rooms of sufficient size for all activities, a combined dining and living room equipped with suitable furniture will give one room of good dimensions and maximum usefulness. In a similar manner, kitchen activities can be combined with dining, ironing, and child care. In small houses and apartments where plans must be made for the intensive use of space, the living room and bedroom are often combined, and occasionally living room, dining room, and kitchen are combined in order to save space ordinarily taken up by partitions.

The family's living habits determine many of the family's housing needs. The extent and manner of entertaining will have an important effect on the size of the dining room, the living room, and possibly the kitchen. The family's interests in recreational and creative activities will determine the amount of space allotted to rooms for these activities. All houses that are carefully planned are an expression of the family's pattern of living.

The activities to be carried on in the household also affect the housing needs of the family. If the laundry is to be done at home, special provision must be made in the basement or on the first floor. If fruit and vegetables are canned in quantity, extra storage space outside the kitchen will be needed.

The plan may also be affected by the furniture for which wall and floor space must be provided. The size and placing of the pieces of furniture that a family may already have or pieces they expect to buy should be thought of in relation to the size and shape of wall spaces and the placing of the pieces of furniture in each room of the house. All rooms should be large enough to allow ample free space after the placing of the necessary furniture.

Family housing needs should be thought of and planned for in respect to both present and probable future needs. In most families, housing needs change during the family cycle, and only through careful planning can houses be made flexible enough to meet these various changes. The family composed of only two adults or an unmarried person will need less room than a larger family, but because a small house is usually difficult to sell, it may be wise to choose a plan which can be enlarged if the buyer so wishes.

Frequently the family whose children are small and whose income is limited may find it necessary to get along with less space during the first years, but if they plan carefully, extra space may be added by the finishing of rooms on the second floor or in the attic or basement, or by building a wing on the house. On the other hand, the family whose children are half-grown must be careful not to overbuild lest they be left with more room than they can care for when the children are gone. If they

do build a large house, they should do so with the thought of its resale value or the future possibility of making it into apartments. Such an adjustment not only reduces the space to fit the smaller family but also adds to the family income.

THE FAMILY'S HOUSING NEEDS

The kind of house the family needs can best be determined by making a list of the rooms and spaces considered necessary for the different family activities with the approximate sizes for each. All requirements beyond these should be listed as something desired if the cost is not prohibitive. A form such as follows may be used in making this record. With this information the family should have a basis for determining whether a plan for a rented house or a house to be built is suitable for their particular needs.

FAMILY'S MINIMUM HOUSING NEEDS

	Rooms and Spaces	Approximate Sizes	Other Desired Features
Social and recreational area			
Work area			
Rest area			

SIZE OF ROOMS

The most satisfactory size for the different rooms in the house is dependent upon their use, and the equipment and furniture that must be placed in each room. Bedrooms, bathrooms, kitchens, and laundries can be exactly determined in size by the dimensions of the furniture and stationary equipment and their use.

Dining and living rooms often serve more than one purpose and should be of ample size to allow for dining, entertaining, and sometimes a play space for children. The exact sizes for these rooms may be determined by checking room sizes and furniture arrangements in other homes.

HOW TO CHOOSE A DESIRABLE HOUSE PLAN

When a number of desirable house plans have been found, a detailed study of each one should be made to see if the size and arrangement fit the needs of the family. In selecting such plans the family will find it advisable to limit themselves to those which fall within the cost range that the income allows. When this is done, it is easier to see what the family's money will buy and there is less danger of planning beyond that amount. Many of the disappointments in planning and building a house arise from the fact that the family's first plans often exceed what they can afford to spend on housing.

Anyone planning a house can test the relation of the major activity areas, the serviceability of halls and stairways, and the location of doors and windows by imagining the conditions under which the house will be used. The methods of reaching the different rooms can be traced on the plan. The following suggestions are given for studying and testing the livability, workability, and adaptability of any plan in relation to the major activities of the family.

STUDYING AND TESTING PLANS

1. Check the family's minimum housing need chart (page 325) with each of the plans being studied, and note how many of the features desired by the family are found in the plans or how many might be included.

2. Trace the plans that seem most desirable or make enlarged drawings on barred paper.
3. With different-colored pencils draw a line around (1) the social and recreational area, (2) the work area, and (3) the rest area on the plan.
4. Study the amount of space devoted to the activity areas to see if the plan will meet the needs of the family.
5. Study the location and the relationship of each area, keeping in mind the possible lot on which the house may be built. The facing of the lot, the prevailing breezes, and the size and shape of the lot and the surroundings will determine in part the most suitable arrangement of the rooms and the garage.
6. Test the circulation or communication between the rooms in the different areas by tracing with a pencil the lines of traffic.
7. Using the different drawings of floor plans, spend an imaginary week in each house studying and testing the usability, workability, and adaptability of the plans. By means of different-colored pencils, trace the routes traveled in performing such activities as cleaning the house, washing and ironing, or preparing a simple meal.
8. On another floor plan, trace the routes that the children take in getting on their wraps and going out to play, in getting out their play equipment, and in coming into the house and going out again. Other activities of the children may be studied in similar fashion.
9. On another plan trace father's goings and comings and recreational activities, or better still let father do it, and if the children are old enough they can make their own tracings.

A study of the floor patterns of each of these imaginary tests will quickly show the routes that must be traveled and the lines of greatest traffic in the house. If the routes traveled by the various members of the family as they come and go about their activities in the house are short and direct, the plan has possibilities and may prove satisfactory. If on the other hand the routes are long and circuitous, the plan should be discarded.

PLANNING AN EFFICIENT WORK AREA AND ADEQUATE STORAGE SPACE

All centers in the work area should be planned and arranged to eliminate the expenditure of excessive time and effort in accomplishing the work that must be done. By careful thought

the equipment in the rooms in the work area may be grouped so as to achieve this end.

PLANNING THE KITCHEN

Kitchens, to be efficient, should be planned so that the preparation of food flows along in a simple direct route from the time the food enters the kitchen until it is served in the dining room. The major kitchen activities—food preparation, cooking, serving, and clearing up—center about the refrigerator, range, and sink. In all kitchens it is important to have these pieces of equipment conveniently located with the shortest possible distance between them. Arranging a kitchen for efficiency and convenience automatically divides it into three working centers: (1) the refrigerator and preparation center, (2) the range and serving center, and (3) the sink and dishwashing center.

KITCHEN WORK CENTERS

The refrigerator and preparation center is most convenient when placed near the entry door with adjoining cabinets to store staples, utensils, and tools used in food preparation. Cabinets may be placed above the refrigerator if it is not too high and if this does not interfere with its operation. The refrigerator door should open on the side adjoining the work surface. This arrangement provides a space for setting foods near the refrigerator and for arranging salads and making beverages. Since food preparation involves the frequent washing of tools and utensils as well as food materials, the sink should be near by.

The range and serving center are logically placed nearest the dining-room door so that food which is to be served hot can go directly from the stove to the dining-room table. Cooking equipment such as skillets, forks and spoons used in handling and stirring foods, the roaster, and pressure cooker should be stored near the stove. An important part of this center is a working surface that can be used in last-minute food preparation and in serving food. This may be a table or cabinet where dishes and such food supplies as bread, cookies, jellies, and condiments can be stored.

Since the sink plays such an important part in all kitchen

activities, it should be easily accessible to both the refrigerator and preparation center and the stove and serving center. Frequently it is located between these centers, and in many plans the refrigerator, sink, and stove are arranged in the form of a triangle. (See plans Figure 33.) Working surfaces on either side of the sink, storage space for dishwashing equipment, towels, garbage container, cooking utensils and tools used at the sink are the pieces of equipment most frequently grouped about the sink. Dishes, silver, and linen are most convenient when stored near by. When all meals are eaten in the dining room, steps may be saved by placing the sink and storage cabinets as near the dining room as possible. The dotted lines on the floor plans shown in Figure 33 illustrate how the location of the sink affects the dishwashing route in different types of kitchens.

In many kitchens the work centers overlap, and in small kitchens the food preparation, serving, and dishwashing centers are often combined in one compact unit. Such a step-saving arrangement is shown in Figure 34.

SIZE AND SHAPE OF KITCHEN

The activities to be carried on in the kitchen and the size of the family determine in large measure the amount of floor space and storage needed in this area. In addition to the food-preparation activities many families like to have a center in the kitchen where meals can be served and where children can play or where adults can rest and sit at work. When the laundry is located in the basement, many homemakers prefer to iron in the kitchen. In planning space for eating and ironing in the kitchen, it is well to have this center separated from the main kitchen activities. Such separation allows a more compact arrangement of the work centers. A built-in ironing board and a drop-wall table frequently solve the storage and space problems for these activities.

A kitchen should be large enough to provide ample work and storage space in each work center and to allow persons to pass easily between the various pieces of stationary equipment. If other activities such as eating, laundering, ironing, and taking

care of milk are carried on in the kitchen, more room will need to be given over to the work area of the house.

ARRANGEMENT OF EQUIPMENT

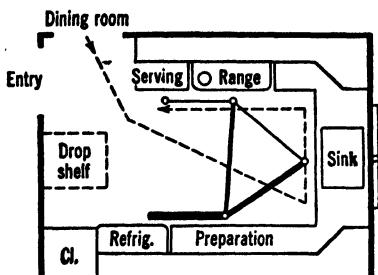
The arrangement of the equipment into work centers in the kitchen is influenced by the shape and size of the kitchen and the location of the doors and windows. The equipment may be arranged in a U-shaped plan, a two-wall plan, an L-shaped plan, a broken U-shaped plan, a one-wall plan, or a separate-center plan. In the U-plan the equipment may be arranged in an almost continuous working surface around three walls of the room. In the two-wall plan the equipment is placed along parallel walls. Various arrangements are possible in such a plan. The L-plan allows the equipment to be placed on two adjacent walls leaving the other walls, if not unbroken by doors and windows, for other activities. In the broken U-plan the equipment is arranged on three walls, but it is not continuous. The wall space is broken by a door which makes a break between the major pieces of equipment. The one-wall plan is frequently used in small apartments where space is limited and where only simple meals are served. The separate-center kitchen is one in which wall spaces are broken by doors and windows so that work centers must be separated.^{5, 6}

The number of doors and windows in a kitchen determine the amount of space available for placing equipment. Traffic through the kitchen is controlled by the placement of doors. When possible, doors to the kitchen should be limited to two in number, and these should be placed so that the traffic route will not interfere with kitchen activities. Plans 1 and 3 in Figure 33 show the ideal use of doors. In both these plans, the refrigerator, sink, and range are compactly arranged outside the direct traffic route. Doors should swing in the most convenient direction and against unused wall space if possible. The window area should be sufficient to supply adequate natural light on working surfaces and plenty of fresh air and ventilation in the kitchen.

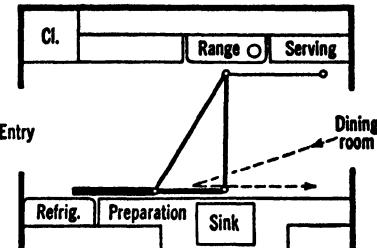
⁵ Tessie Agan, *The House*, pp. 275-276.

⁶ John Normile, *Building Your Home*, pp. 170-171.

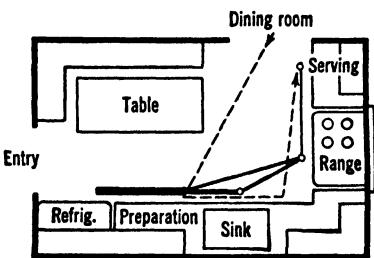
The plans in Figure 33 suggest possible arrangements of different types of kitchens. In each plan the refrigerator and storage cabinets are located near the entry with the working



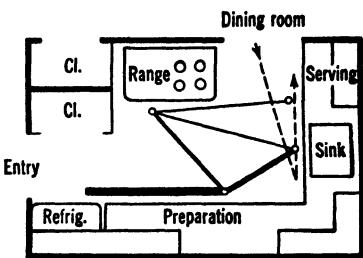
Plan 1.
U-shaped kitchen



Plan 2.
Two-wall kitchen



Plan 3.
L-shaped kitchen



Plan 4.
Broken U-shaped kitchen

FIGURE 33. Typical kitchen arrangements and preparing and clearing-away routes.

The solid lines show the steps required in the imaginary preparation of a cake. The heaviest lines indicate where several trips are made along one route.

The dotted lines indicate the clearing-away routes.

surface and sink for food preparation near by. There is ample working space on both sides of the sink for dishwashing operations and serving space adjoining the range near the dining-room door. The five steps which take place in all food preparation: (1) delivery, (2) storage in refrigerator or cabinets, (3) preparation of food for cooking or serving, (4) cooking, and (5) serving, proceed in an orderly manner from right to left.

The efficiency of each of these plans was tested by the imaginary preparation of a cake and the clearing away after the serving of meals. The preparing route was traced on the floor plan while going through the following steps in the preparation process:

1. Light oven.
2. Wash and wipe hands.
3. Assemble recipe, utensils, and dry ingredients on working surface.
4. Bring fat, eggs, and milk from refrigerator.
5. Measure and combine ingredients.
6. Grease pan and pour mixture in pan.
7. Place cake in oven.
8. Put away dry ingredients.
9. Return supplies to refrigerator.
10. Wash and put away utensils.
11. Clean working surface and sink.
12. Turn off oven and remove cake.
13. Place cake on serving table.

The heaviest lines indicate where several trips were made along one route. The estimates of the distance walked in the preparation of a cake in Plans 1, 2, and 3 were about the same. In Plan 4 the distance walked was greater because of the location of the range.

The clearing-away route is shown by the dotted lines. Estimates of the distance walked in the clearing-away process show that considerably more walking is necessary in Plan 1 than in any of the others. This test shows the desirability of arranging the equipment in the kitchen so that the distance between the sink and the dining-room door is as short as possible.

In all kitchen planning, a study of routings between work centers to check the amount of walking necessary is desirable before permanent arrangements are made or extensive remodeling is attempted. Efficiency tests similar to those described above can be made by any homemaker. The larger pieces of kitchen equipment can be drawn to the scale of the floor plan and shifted about to determine the best arrangement. Routing be-

tween the work centers in various kitchen processes will show which is the most economical plan.

STORAGE SPACES IN WORK CENTERS

To save steps in kitchen work, all food supplies, tools, and utensils should be conveniently stored at the work centers where they are used (page 127). In planning for adequate, well-designed storage space, the homemaker must decide before the cabinets are built or before kitchen units are selected the amount of space needed and how the storage space, both below and above the working surface, is to be used. This can best be done by listing the food materials, tools, and utensils that must be stored in each of the working areas in the kitchen. Suggestions for such a list appear below.

REFRIGERATOR AND PREPARATION CENTER

Sugar, flour, staple supplies
Spices, flavorings
Mixing-bowls, pans
Knives, spoons
Small utensils
Recipes

RANGE AND SERVING CENTER

Skillets, lids
Ladies, forks, spoons
Seasonings
Roaster
Pressure cooker

Bread, cake, cookies
Ready-to-eat cereals
China, silver, linen
Trays, flower containers

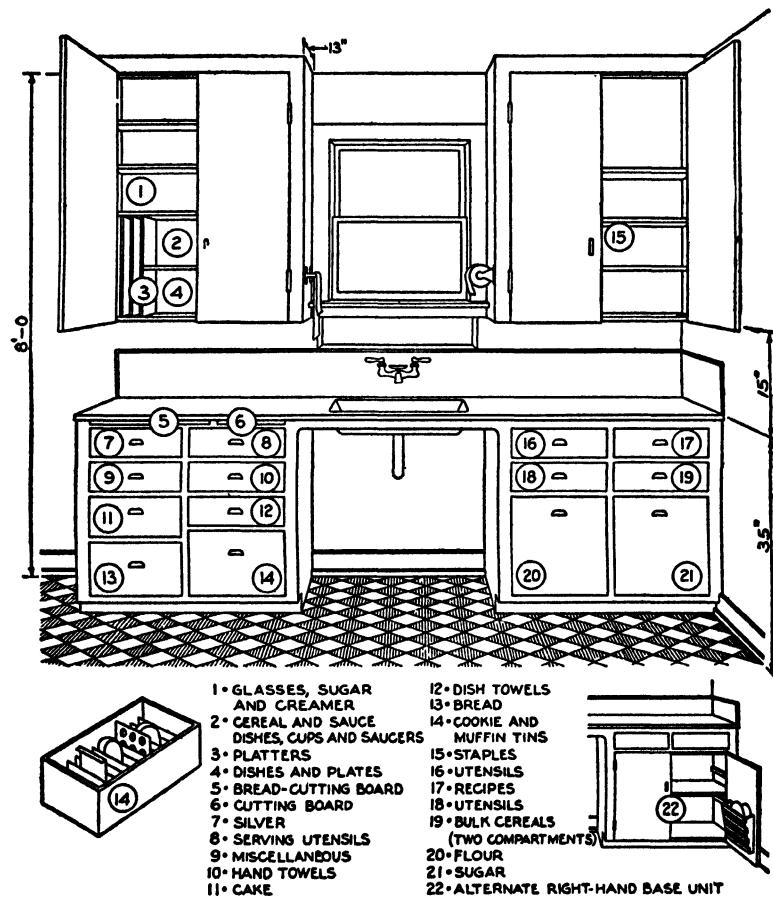
SINK AND DISHWASHING CENTER

Dishwashing equipment, towels, dishcloths
Equipment used in preparation of foods at sink
Kettles, saucepans, strainers, coffeepot, coffee

Making sketches of the equipment in the proposed plan and assigning space on shelves, racks, hooks, and in drawers is an effective method of planning storage space. Just how such plans may be made is shown in Figure 34. In this center in which dishwashing, food preparation, and serving are combined in one compact arrangement, space is carefully planned for each article that is to be stored.

On the right side of the sink is the surface for stacking dishes. On the left is the surface for draining dishes. Directly above is cupboard space for storing glasses, dishes, and platters after they are dried. The storage space for dishtowels is in the drawer below.

The surface at the right of the sink is used as a food-preparation center with utensils and food supplies both above and below the working surface. The surface at the left of the sink



Maud Wilson and J. Robert Dodge, "Closets and Storage Spaces," *Farmer's Bulletin 1865*, United States Department of Agriculture, 1940, p. 12.

FIGURE 34. Sink unit showing a good way to use storage space above and below the work surface.

may be used as a serving center. Directly below this is drawer space for storing silver, linen, bread, and cake. An alternative plan (22) is shown for the utilization of the space below the working surface at the right. Cabinets with shelves may be substituted for the drawers.

The width of shelves as well as the distance apart are determined by the size and shape of the articles to be stored. Cupboard shelves that can be adjusted to fit the equipment are desirable. The use of removable supports at the end of the shelves makes this possible. Sectioning of shelves and drawers add to the convenience of storing many articles. (See Figure 34, number 14.) Such articles as trays, platters, pans, lids, and cutting and stirring tools are easy to store and to pick up in sectioned drawers and shelves.⁷

The narrow apron in front of the sink may be wide enough to hide the bottom of the sink, but it should not be too low for a worker to sit comfortably at the sink. Convenient heights for working surfaces and storage spaces planned to minimize stooping and stretching add much to the efficiency of the kitchen.

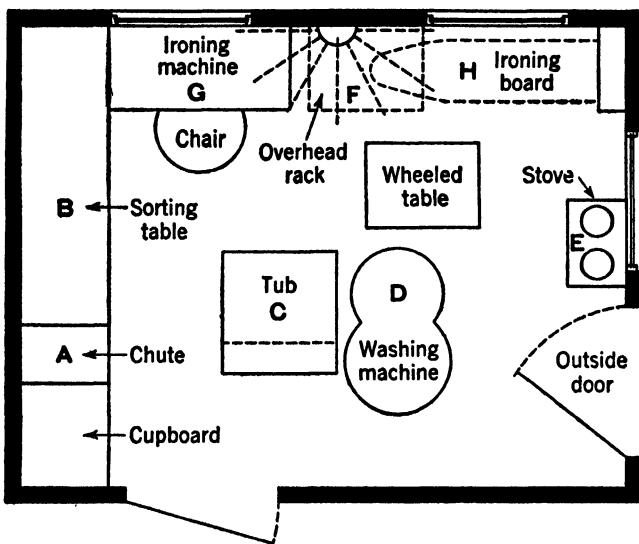
PLANNING THE LAUNDRY

A laundry in the working area of the house should be planned and equipped for efficiency. The location and size of the space where laundering is done vary widely. In many homes provision for this activity is made in the basement. This location usually provides both washing and drying space, which is an advantage during the winter months. In some homes the laundry is placed on the first floor in a room adjoining the kitchen, or in the garage. This eliminates stair-climbing and is advantageous for the homemaker who has small children to care for and supervise. In the apartment house and in houses with limited space, a covered laundry tray and kitchen sink are frequently installed together. In the farmhouse the location of the laundry space is determined by the water supply. When there is running water in the basement, the work may be done there. If there is running water in the kitchen, the work may be done there or in an adjoining room or on a porch.

Wherever the laundry space is located it should be dry, well lighted, well ventilated, easy to clean, and supplied with plenty of hot water. In addition the laundry space should be easily accessible to the drying space in the basement or to the drying yard outside, to the kitchen, children's play space, and the telephone.

⁷ Tessie Agan, *op. cit.*, p. 310.

The size of the laundry and the kind and amount of laundry equipment needed depend upon the kind and amount of laundry work to be done at home, the power available, and the water supply. The minimum essential laundry equipment in-



Consumers' Guide, February, 1938, p. 13.

FIGURE 35. A model home laundry (10½ by 8 feet). The soiled clothes go from the bottom of the chute (A), to the sorting table (B), then to the set tubs for soaking (C). From here some are put in the washing machine (D), while clothes for boiling go to the stove (E). An overhead rack (F) for drying is placed near open windows. Flatwork and other pieces can be ironed with the ironing machine (G); hand ironing can be done on the folding board (H). A small wheeled table can be moved about for various jobs.

cludes a tub, drying lines, and ironing facilities. A well-equipped laundry includes a two-compartment tub with a swinging faucet, a power washer, hot plate, an ironing board and iron, an ironer, storage space for supplies, and a sorting table.

In order that laundry may be done in an efficient manner, the pieces of equipment should be arranged in the order that the laundry processes are performed, namely: (1) sorting clothes, (2) soaking, (3) washing, (4) rinsing, (5) drying, (6) sprinkling, (7) ironing. The laundry plan in Figure 35 shows how a step-saving arrangement may be developed.

PLANNING ADEQUATE STORAGE SPACE

Satisfactory plans for any livable house provide for adequate storage space throughout the house. Efficiently planned closets contribute to orderliness and ease in living. "Placing the necessities of daily life within easy reach and in a minimum of space not only conserves time, steps, energy, and tempers, but also reduces wear, tear, and actual loss."⁸ In making plans for storage closets, the family's needs and the use that is to be made of the space should be given careful consideration.

CLOTHES CLOSETS

Clothes closets that are well arranged and equipped help keep clothing in good condition and make it easy to get garments out and put them away and to keep the closet in order. The minimum dimensions for clothes closets that have been worked out by Wilson and Dodge are given in Figure 36.⁹ These plans may be increased in size and the arrangement varied by adding equipment of various kinds. Clothing on hangers is represented by the lines drawn at right angles to the rods.

When a closet is narrow and fairly deep (*A*), an extension rod is a good arrangement. The width of the door in such a closet should be at least 2 feet deep to allow for hangers on the rod.

The shallow or reach-in closet (*B*) is convenient when space is limited. The depth should never be less than 2 feet, and the door or doorway should be practically as wide as the closet.

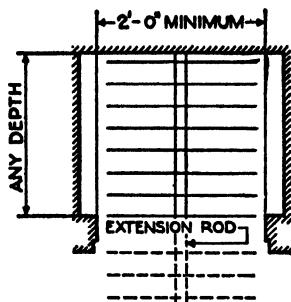
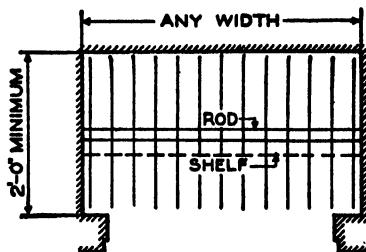
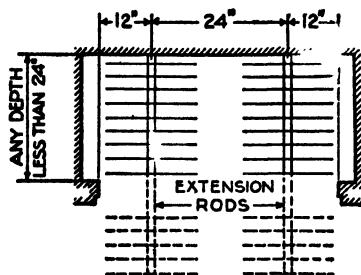
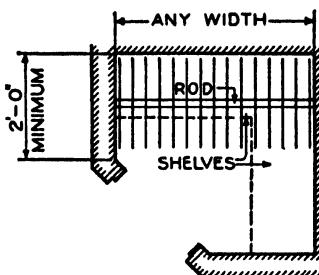
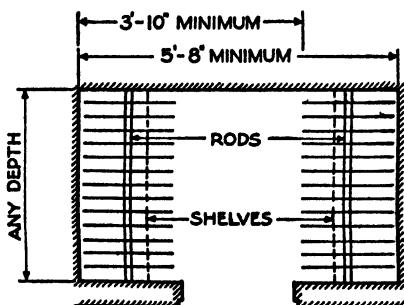
When the closet is very shallow the maximum hanging space may be had by placing hangers crosswise. Plan *C* shows this type of arrangement.

The corner closet (*D*) takes up little floor space and provides considerable storage space. This type of closet may be used when no other space is available.

The two walk-in closets (*E* and *F*) are deep and wide enough so that anyone using them must step inside. Shelf space may be

⁸ Dorothy Curtiss Doyle, "Bedroom Closets," Home Information Service, Better Homes in America, Purdue, *Bull.* 2, 1936, p. 5.

⁹ Maud Wilson and J. Robert Dodge, *op. cit.*, pp. 2-3.

**A, NARROW CLOSET****B, SHALLOW CLOSET****C, VERY SHALLOW CLOSET****D, CORNER CLOSET****E, 2-ROD WALK-IN CLOSET**

Maud Wilson and J. Robert Dodge, "Closets and Storage Spaces," *Farmer's Bulletin 1865*, United States Department of Agriculture, 1940, p. 3.

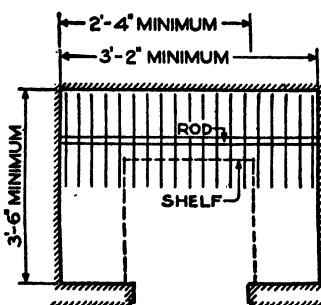
**F, 1-ROD WALK-IN CLOSET**

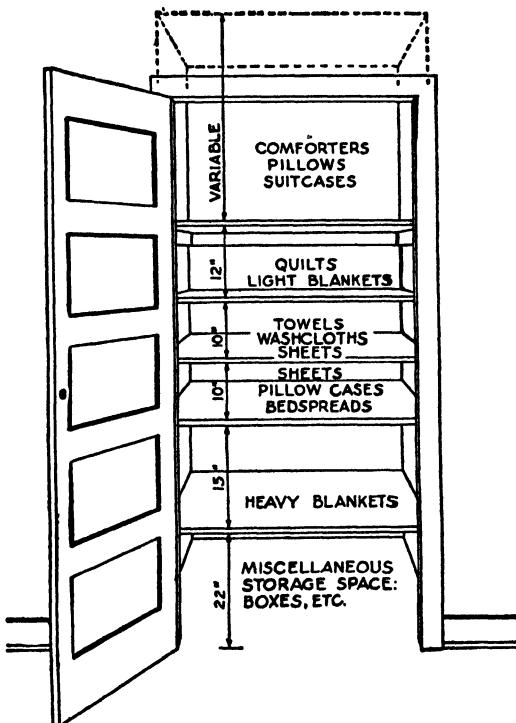
FIGURE 36. One of these clothes-closet plans can be adapted to suit the space available.

planned to take the place of some of the hangers when the closets are large enough.

The lighting in all closets should be sufficient to make the contents easily available. If natural light or the artificial light in the adjoining room is insufficient to light the closet, an electric-light fixture inside the closet is desirable.

LINEN CLOSETS

A closet for linens is most convenient when located in the hall where it can easily be reached from both bedrooms and



Maud Wilson and J. Robert Dodge, "Closets and Storage Spaces," *Farmer's Bulletin 1865*, United States Department of Agriculture, 1940, p. 10.

FIGURE 37. Closet for linen and bedding.

bathrooms. In addition to household linens this closet may be used for extra bed clothing needed throughout the year. Figure

37 is an inexpensive linen closet planned by Wilson and Dodge which shows the arrangement of shelves for storing the linen and bedding for the average family. The closet recommended is about 36 inches wide and 24 inches deep. Adjustable shelves are desirable since they allow for changes in kind and number of articles to be stored. Drawers and trays may be supplied in the linen closet, but they add to the cost of construction.

CLEANING CLOSETS

Some space, either a closet or a utility unit, should be given to the storage of cleaning equipment. A good location for a cleaning closet is in the rear hall where it is readily accessible from the kitchen and other rooms. Space in the cleaning closet should be provided for all articles and supplies used in cleaning, such as brooms, floormops, brushes, and if possible the vacuum cleaner, attachments, and carpet sweeper. In determining the dimensions of a cleaning closet the size and shape of all pieces of equipment to be stored must be taken into consideration.

SEWING CLOSETS

A place for the sewing-machine and sewing supplies, especially if much sewing is done at home, should be provided. The size and shape of the storage space depend in part on the type of machine. A portable electric machine can be stored in a space about 10 inches wide, 21 inches long, and 16 inches high, but a space 18 inches wide, 36 inches long, and 31 inches high is necessary for storing most drophead sewing-machines. Shelves or drawers for sewing supplies are also needed.

OUT-OF-DOOR STORAGE

In many homes storage space is needed for tools for the yard and garden and for children's play equipment. Such a place may be provided on the back porch, in the woodshed, or in the garage, if it is near the house. Walls should be of material that permits hooks and shelves to be placed where needed. The dimensions of such a storage space will depend entirely upon what must be stored.

THE EXTERIOR DESIGN OF THE HOUSE

In working out the floor plan of the interior of a house some thought must be given to the way the plan will affect the exterior design of the house. Both are definitely related and part of a harmonious whole. Fortunately it is possible with careful thought and planning to have both an interior plan good in design and well suited to the family and a pleasing exterior. When the two are thought of as a unit and worked together the arrangement of the interior plan will be reflected in the exterior design.

Studying the different possibilities in floor plans and exterior designs of different shapes, square, rectangular, L-shaped, T-shaped, or U-shaped, is one of the best ways to see the relationships between floor plans and exterior designs. Usually it will be seen that several different exteriors may be developed for each of the floor plans. By means of different-shaped roofs and exterior finishes, a different arrangement of doors and windows, or another type of entrance, the elevation of any plan can be greatly changed in appearance.

Houses of simple design, pleasing in proportions, with well-spaced windows, an interesting doorway, and a minimum number of different materials are usually the most satisfying over a period of time. Such houses are less expensive to build and require less upkeep than the more ornate or elaborate type of dwelling. The making of a small pasteboard model of the house being planned is one of the best methods of testing the appearance of the completed house.

WAYS OF CONTROLLING COSTS

Through good planning of both the interior and exterior design of the house, the utilization of standard sizes of framing lumber and other items of stock millwork, the avoidance of waste of materials and labor, and the omission of all unnecessary items, building costs can be kept at a minimum. To the inexperienced home builder, the advice and help of an architect or builder who has expert knowledge of building materials and construction methods and of the best ways to plan for the in-

stallation of plumbing, heating, lighting, and insulation will be most helpful. When such advice cannot be obtained, the use of ready-made plans and specifications will eliminate many mistakes and unnecessary building costs.¹⁰

WORKING PLANS AND SPECIFICATIONS

After the family has found or made a drawing of a plan which meets its needs, an architect may be employed to prepare the final working plans and specifications, or a ready-made plan of similar design may be purchased.

ARCHITECT'S PLANS

The standard fee for an architect is 6 to 8 per cent of the contract price. On a 6 per cent basis, the distribution is usually 4 per cent for preparing plans and specifications and taking bids, and 2 per cent for supervising construction. Experienced builders frequently eliminate this latter cost by doing their own supervising.

Because of his expert knowledge of building materials and construction, an architect frequently saves more than the cost of his fee by eliminating unnecessary costs in planning and building. An architect may also enable the home builder to secure a house of better design, arrangement, and construction, as well as one which may have a higher sale value in the future.

READY-MADE PLANS

Those who feel they cannot afford an architect may purchase excellent plans and specifications from a number of sources. The Architect's Small House Service Bureau, architects who prepare and sell their own plans, magazines, commercial concerns, and lumberyards all supply house plans for a nominal sum. Frequently house plans designed by an architect for an individual family in some other city may be purchased from the architect at a reasonable price. If minor changes are necessary in a plan or

¹⁰ For a detailed discussion see: (a) Robert T. Jones, *Fifty Ways to Lower Building Costs*, Architect's Small House Service Bureau, Inc., Minneapolis, 1931; (b) "Principles of Planning Small Houses," *Technical Bulletin 4*, Federal Housing Administration, Washington, D. C., revised, 1938.

specifications, these can be made by the architect or with the help of a good contractor.

Families that do not wish to take all the responsibility of planning a house may find the ready-cut and prefabricated houses a solution to their problem.

SPECIFICATIONS

The specifications which accompany the working drawings or house plans describe the quality of materials which are to be used in building the house and the kind of workmanship necessary to ensure good construction. Specifications are a part of the completed plans and enter into the contract between the owner and the contractor. They make it possible for all contractors to bid upon materials and workmanship of a given standard.

The specifications are arranged in the general sequence that the construction of the house will follow, and each item of information is listed under separate headings. Items which should be included in all construction contracts are:¹¹

Clearing site	Trim
Excavation	Windows and doors
Backfill and grading	Rough hardware
Footings	Screens and storm sash
Foundation walls	Closets
Cellar floors	Built-in accessories
Chimneys	Finish floors
Outside steps, porches, terraces, and walls	Painting
Walks and driveways	Glazing
Framing	Finish hardware
Exterior walls	Plumbing
Roof	Heating
Sheet metal	Electric work
Ornamental and structural iron and steel	Equipment
Interior wall and ceiling finishes	Miscellaneous
	Garage

Carefully prepared specifications will protect the owner and relieve many misunderstandings throughout the work.¹² They also protect the contractor since no demand can be made upon

¹¹ "Contract Documents for a Small House Construction," Federal Housing Administration, *Technical Bulletin 3*, revised, February 1, 1938, pp. 8-11.

¹² Halbert, *The Better Homes Manual*, pp. 190-192.

him for something that has been omitted by the architect or the owner. If the owner and the architect decide to omit some item or make some substitution that will cost less, this will decrease the total cost of the building for the owner. On the other hand, if the owner wishes to add something not included in the specifications and the contract price, he must pay for these extras.

SELECTION OF THE BUILDER OR CONTRACTOR

Letting out the plans to a number of builders or contractors for competitive bidding is the next step. When these bids are submitted and checked by the owner and architect, the contractor is selected and the contract awarded to him, subject to completion of financing the building costs. (See Chapter XIX.)

Before the contract is let, the reputation and ability of the contractor should be carefully checked. Since a house usually represents the largest single expenditure the family makes, employing any but the best contractor is likely to be unwise. Information concerning a contractor can be obtained from the architect, if one is employed, or from other home owners who have had the contractor build their homes.

RELATION OF HOUSING TO TIME AND ENERGY COSTS

Although the saving of money is an important consideration in the preparation of plans and specifications for a house, the possibilities of saving time and energy should not be overlooked. Satisfaction in home ownership depends upon the amount of time and energy required to take care of the house. Contentment is possible only when housekeeping standards can be reasonably well attained without undue strain and fatigue. Homemakers who take time to plan a house with step-saving arrangements and adequate storage facilities, and who choose materials and finishes from the standpoint of care and upkeep, will save both time and energy in the care of the house after it is built.¹⁸

¹⁸ *Household Management and Kitchens*, The President's Conference on Home Building and Home Ownership, Washington, D. C., 1932, Chapter II.

PART V

MANAGEMENT PROBLEMS IN USING OTHER GOODS AND SERVICES

CHAPTER XXI

SELECTION OF FURNISHINGS AND EQUIPMENT

The relaxation, recreation, and rest which the family enjoys in its home and the ease with which the house can be cared for depends in large measure upon its furnishings and equipment. If the house is to meet the needs of the family, appropriate furnishings and equipment are necessary in each activity area. In the social and recreational area the selection of furniture and equipment which provides a certain amount of comfort and relaxation and an opportunity for creative activity is important. In the rest area, comfort in sleeping and resting is usually given first consideration and personal needs second. In the work area the choice of time- and energy-saving equipment is of foremost importance. Since the furnishings of the home must be lived with and used constantly, they should be not only beautiful enough to give pleasure, but also useful and durable.

The furnishings and equipment in homes vary in kind and amount, since families have different amounts to spend, different spending habits, different needs, interests, and tastes. Deciding how much the family can spend on furnishings and equipment and the making of intelligent choices are the major management problems in furnishing and equipping the house.

HOW MUCH SHOULD BE SPENT ON FURNISHINGS AND EQUIPMENT?

How much does it cost to furnish a house? What amount should be set aside each year for replacement? These questions concern families who are planning to furnish a house as well as

those who are making plans for buying new pieces of furniture and equipment.

The recent study made by the Heller Committee for Research in Social Economics gives furnishing and equipment budgets which may be consulted in making estimates of the initial cost of furnishings and the annual cost of replacement. Furniture, kitchen utensils, electrical equipment, linen, bedding, curtains, china and glassware, silver, cleaning and laundry equipment are

TABLE XXXVII
FURNISHINGS BUDGETS FOR FAMILIES OF AN EXECUTIVE, A CLERK, AND
A WAGE EARNER*

Initial Cost of Furnishing a Home and the Annual Cost of Replacement

Item	Executive (4 in Family)		Clerk (5 in Family)		Wage Earner (5 in Family)	
	Estimated Initial Cost	Annual Cost of Re- place- ment	Estimated Initial Cost	Annual Cost of Re- place- ment	Estimated Initial Cost	Annual Cost of Re- place- ment
Total cost of furnishings	\$4,701.68	\$269.87	\$1,736.76	\$98.91	\$1,144.23	\$65.96
Furniture.....	2,836.16	113.45	1,050.22	42.01	673.20	26.93
Kitchen utensils.....	149.44	14.94	67.11	4.70	58.25	4.08
Electrical equipment	484.06†	33.88	214.33‡	15.00	139.05‡	9.73
Linen, bedding, curtains.....	619.06	77.38	261.14	26.11	196.02	19.60
China and glassware.....	233.49	22.35	72.29	7.23	24.90	2.49
Silver.....	364.81§	—	63.20||	1.26	44.70||	0.89
Cleaning and laundry equipment.....	8.90	1.11	6.31	0.44	6.31	0.44
Brooms, brushes, mops	5.76	5.76	2.16	2.16	1.80	1.80

* Compiled from *Quantity and Cost Budgets for Four Income Levels*, Heller Committee for Research in Social Economics, University of California, Berkeley, California. Prices for San Francisco, March 1941 (excluding state sales tax).

† Includes radio-phonograph combination, refrigerator, vacuum cleaner, sewing-machine, washing-machine, iron, and minor appliances.

‡ Includes radio, vacuum cleaner, washing machine, and iron.

§ Sterling flatware.

|| Plated flatware.

the items included in the budgets. Although these budgets are not suggested as ideals of spending which all families should follow, they represent an acceptable standard which may be used as a guide and adjusted to meet individual circumstances and tastes. The budgets suggested for families of an executive, clerk, and wage earner are given in Table XXXVII.

In each of these budgets by far the largest amount is allotted to furniture. Linen, bedding, curtains, and electrical equipment are the next highest items both in initial cost and in annual replacement.

The living expenditures of the families in the different income groups reported in Table XXIX give further information concerning the annual expenditures for furniture and equipment. These data show that in 1935-1936 families whose income was under \$780 spent on the average 1.7 per cent of the yearly income, or \$9, for furniture and equipment; families whose income was between \$780 and \$1,450 averaged 2.7 per cent, or \$28 a year; and those whose income ranged from \$1,450 to \$3,000 spent 3.3 per cent, or \$50 to \$68. Families in the higher-income group, \$3,000 and over, spent from 3.3 to 2.7 per cent of their income, or between \$92 and \$342, for furniture and equipment. These figures indicate that the expenditures for furniture and equipment were slightly higher in the middle income groups than at the extremes, while the actual amount of the income spent for furniture and equipment rises gradually from the lowest income level to the highest.

MAKING A FURNITURE BUDGET

For families who are furnishing a house throughout, and for those who can buy only a few articles at a time, a furniture budget or plan for the distribution of the money available among the various rooms is desirable. Planned spending usually results in the family's getting more for its money and in essentials being bought first. To make a budget the family must thoroughly consider its needs, determine what furniture will best fit the floor space, and how much can be bought for each room.

One of the most workable methods of budgeting and selecting

FURNISHING BUDGETS ON THE UNIT SYSTEM

Three-Room Apartment			Five-Room Apartment		
	Relative Unit Value	No. of Units in Apartment		Relative Unit Value	No. of Units in Apartment
<i>Living room and dining room</i>			<i>Living room</i>		
1. Easy chair	1	1	1. Easy chair	1	1
2. Easy chair	1	1	2. Small armchair	1	1
3. Sofa	3	3	3. Small side chair	3	3
4. Small table (unfinished)	1/4	1/4	4. Sofa	3	3
5. Large table	2	2	5. Small table	1/4	1/4
6. Side chairs (3)	3	1 1/2	6. Writing table (unfinished)	3	3
7. Bookcase (unfinished)	1 1/2	1 1/2	7. Hanging bookshelf	1/4	1/4
8. Rug	1	1	8. Rug, 6' x 9'	1	1
9. Curtains (two windows)	3	1	9. Curtains (two windows)	3	1
		12 1/4			9 1/4
<i>Bedroom</i>			<i>Dining room</i>		
1. Double bed	1	1	1. Table (oval)	2	2
2. Spring, mattress, and pillows	1 1/2	1 1/2	2. Side chairs (4)	3	2
3. Chest of drawers (unfinished)			3. Small corner cupboards (2)	1 1/2	3
4. Curtains (two windows)	1 1/2	1 1/2	4. Curtains (one window)	3	1/4
5. Rugs	3	1	5. Rug, 6' x 9'	1	1
6. Mirror	1/4	1/4			
7. Side chair (unfinished)	1/4	1/4			8 1/4
		3			
<i>Kitchen</i>			<i>Family bedroom</i>		
1. Kitchen equipment			1. Double bed	1	1
2. Glass and china	1	1	2. Spring, mattress, and pillows	1 1/2	1 1/2
3. Linen (complete apartment)	1	1	3. Bureau (unfinished)	1 1/2	1 1/2
		1	4. Side chairs (2)	3	1
		1	5. Rug, 3' x 6'	3	3
		1	6. Curtains (two windows)	1	1
		1	7. Mirror	3	3
		1			
<i>Accessories</i>					7
1. Lamps (2)					
2. Pillows	1/4	1/4	<i>Second bedroom</i>		
3. Vases and pictures	1/4	1/4	1. Single beds (2)	3	1
4. Blankets	1	1	2. Springs and mattresses (2)	1 1/2	3
	1	1	3. Bureau	1 1/2	1 1/2
		1	4. Side chairs (2)	3	1
		1	5. Rug, 3' x 6'	3	3
		1	6. Curtains (two windows)	1	1
		1	7. Mirror	3	3
Total 25 units at \$10.00—\$250.00		25			8
			<i>Kitchen</i>		
			1. Table and chair	3	3
			<i>Accessories</i>		
			1. Glass and china	2	2
			2. Linen	3	3
			3. Blankets	4	4
			4. Lamps (2)	1/4	1/4
			5. Pillows for sofa	3	3
			6. Vases and pictures	1/4	1/4
					11 1/4
			Total 45 units at \$10.00—\$450.00		45

furniture is that suggested by Leon Pescheret at the President's Conference on Home Building and Home Ownership in 1932. This plan establishes a definite relation of value between the individual articles of furniture by dividing the room into a given number of units and allotting to each piece of furniture a fraction in proportion to its relative importance.^{1, 2}

After a family has determined the amount that can be spent on furniture and what furniture is needed in the different activity areas of the house, the relative furnishing values of these articles are divided by means of units as shown in the accompanying scale. This method establishes a definite relation of value between the individual pieces of furniture and eliminates the possibility of overspending on any one article. An easy chair is designated as one unit. A bookcase stands as one and a half. A large table is considered two units, and a large sofa three units. The relation of these units remains the same whether the total of the furnishing budget is \$250 or \$2,500.

According to this scale, if the sofa costs \$120, the easy chair should not exceed \$40 and the large table \$60. The schedule for the three-room apartment is planned on the basis of 25 units, while that of the five-room apartment includes 45 units. Checking these units with market prices enables one to work out plans for furnishing any house. This method of estimating and apportioning expenditures is valuable for the family that is planning its future expenditures in furnishing and that is interested in a well-balanced budget.

BUDGET FOR FOOD AND SERVICE EQUIPMENT

A spending plan for the working equipment in the kitchen is also desirable, since such a large number of articles must be purchased with the money available. The making of such a plan requires the listing of utensils and equipment needed in the preparation, cooking, and serving of food. Although the needs vary from home to home, certain equipment is essential in all work centers.

The following list, which was prepared by Wilson and

¹ *Homemaking, Home Furnishing and Information Services*, President's Conference on Home Building and Home Ownership, Vol. X, 1932, pp. 106-128.

² "New System of Budgeting," *House Beautiful*, Vol. 71 (March, 1932), p. 198.

LIST OF UTENSILS FOR THE FARM KITCHEN*

Total cost, \$108.10

Kettles, \$14.00

- 1 kettle with lid, 8-quart lid clamps
- 1 kettle with lid, 6-quart steamer inset
- 1 kettle with special lid for draining, 4-quart
- 1 double boiler; upper 2½-quart, shallow; lower, 3-quart
- 1 double boiler, enamelware; upper, 1½-quart, deep; lower, 2-quart
- 1 saucepan to fit top of teakettle
- 1 teakettle, 6-quart

Skillets, \$5.75

- 1 double skillet, 10-inch
- 1 frying pan, 12-inch; tin lid to fit
- 1 frying pan, 8-inch
- 1 griddle, 12-inch

Baking utensils, \$8.70

- 1 casserole with lid, 2-quart
- 1 pudding pan, 9-inch diameter
- 1 pan, 12-inch diameter by 3 inches deep
- 2 muffin pans, 8-muffin
- 1 cake pan with tube
- 1 pan with straight sides, loaf cake, 9 by 9 by 1½ inches
- 1 pan, roasting and baking, 10 by 14 by 2 inches with trivet
- 4 pans, bread, 9½ by 5½ by 3½ inches
- 2 cookie sheets
- 3 pie pans, 9-inch diameter by 1¼ inches deep
- 1 beanpot, 3-quart, wide mouth, lid
- 1 rack 10 by 14 inches
- 2 pans, layer cake, 9 by 9 by 1½ inches

Tea and coffeemakers, \$5.55

- 1 teapot, 1-quart
- 1 tea ball 2½-cup
- 1 coffeemaker, 1-quart
- 1 coffeemaker, 6-quart

Mixing bowls, \$4.35

- 1 bowl, 6-quart
- 1 bowl, 4-quart
- 1 bowl, 2-quart
- 1 bowl, 1-quart
- 1 pan, bread mixing and raising, 2½-gallon, with lid

Measures, \$1.65

- 1 measure, 1-quart, metal
- 1 measure, 2-cup, metal
- 1 measure, 1-cup, glass
- 1 set of four measuring cups, metal, graded
- 3 tablespoons
- 3 teaspoons
- 1 set of four measuring spoons

Knives, turners, \$4.05

- 1 paring and slicing knife, 4-inch blade
- 1 paring knife, 7- or 8-inch blade
- 1 bread and slicing knife, 8-inch blade
- 1 spatula, 7-inch blade
- 1 spatula, 4-inch blade
- 1 turner, 14 inches long

Spoons, forks, \$2.20

- 1 spoon, wooden, 15-inch
- 1 spoon, wooden, 11-inch
- 1 perforated spoon, metal, 10-inch
- 1 nonperforated, large bowl spoon, 11-inch
- 1 ladle, 2½-cup capacity
- 1 fork, 2-tine, 10 inches long
- 1 fork, 2-tine, 15 inches long
- 1 case fork

Other small utensils, \$8.55

- 1 grinder, medium size
- 1 grater
- 1 nutcracker
- 1 round chopper
- 1 reamer with saucer
- 1 masher, metal
- 1 sifter, 1-quart
- 1 blender
- 1 rotary egg beater
- 1 rolling pin, roller 12 inches long
- 1 cutter, 2½-inch diameter
- 1 cutter, 3-inch diameter
- 1 steel
- 1 can opener
- 1 can and bottle opener

Canning equipment, \$36.60

- 1 kettle, 3-gallon
- 1 pressure cooker, capacity to process 7 quarts at one time
- 1 jar lifter

Canning equipment—continued
1 funnel, large mouth
1 funnel, small mouth
1 pot, with spout (for paraffin)
1 colander with mallet
1 processing vat with rack (clothes boiler adequate)
1 capper and sealer
Utensils used at sink, \$8.20
1 dishpan, 17 by 12 by 4½ inches
1 pan, 16 by 11 by 4½ inches; nests into dishpan
1 rack, wire covered with rubber, 15 by 19 inches
1 scraper, metal
1 pot cleaner
1 strainer, triangular

Utensils used at sink—continued
1 sieve on stand, wire
1 brush
1 pail, 3-gallon
Other utensils and tools, \$8.50
1 freezer, 1-gallon
1 scoop, ½-cup
1 scoop, ¼-cup
1 shaker, 2-cup
1 dredger, 2-cup
1 cookie jar with lid, 1-gallon
1 scissors
1 hammer
1 screwdriver, large
1 screwdriver, small
1 pair pliers
1 oil can

* Maud Wilson and Helen E. McCullough, "A Set of Utensils for the Farm Kitchen," *Station Circular 134, Ore. Expt. Sta. Bull.*, 1940, pp. 3-4.

McCullough for the farm home, may be suggestive in checking the adequacy of the family's plan or of a supply already on hand. This list is considered an adequate set of nonelectric kitchen utensils for the average Oregon farm home where cooking is usually done for four to five persons and where a wood range is used. The costs given show the approximate amounts that should be allowed for the different sets of utensils and tools in making a budget for kitchen equipment. The number and quality of articles purchased depends in part on the amount of money the family has to spend. Some families may prefer to get along temporarily with fewer pieces in order to purchase better equipment.

By using the amounts suggested in Table XXXVII, similar budgets or plans may be made for the buying of electrical equipment, linens, bedding, curtains, china, glassware, and silver.

SELECTION OF FURNISHINGS AND EQUIPMENT FOR ACTIVITY AREAS

The large number of activities carried on within the house call for furniture, equipment, and textile materials of all kinds. In selecting these, the family's tastes, physical, social, and recreational needs, and the amount of money available must be taken into consideration.

The tastes and habits of the family are usually reflected in its choice of furnishings and equipment for the home. In the social and recreation area which is shared by the group, the selections of furniture and equipment are likely to be based on group tastes and pleasures. Individual tastes usually play a larger role in the choice of furnishings and equipment for the sleeping area, and in the work area selections involve both individual and group tastes and interests.

The individual and family needs should be carefully studied and furnishings and equipment purchased on these bases. The buying of more than is needed crowds the rooms, takes up valuable storage space, increases the work of the household, and involves unnecessary expenditure of money.

The purchase price of all furnishings and equipment is influenced by the kind of materials used, the quality of workmanship, the construction, and finish. These factors influence both the price of the article and its suitability for a particular family need.

ACQUIRING INFORMATION NEEDED TO MAKE INTELLIGENT CHOICES

The great variation in the quality, make, and price makes the selection and buying of the furnishings and equipment a difficult task.

The securing of reliable information concerning quality of material and construction at different price levels is a difficult problem for all consumer-buyers. A wider use of adequate informative labels on merchandise, identifying the quality and performance characteristic of an item, would help to give the buyer information he needs if he is to buy wisely.

In addition to informative labels, now in use, descriptions in advertisements in magazines and in mail-order house catalogues give specific and helpful information. The various publications of the Bureau of Home Economics and the United States Department of Agriculture, reports of research work in the *Journal of Home Economics*, books, and magazines are other reliable sources of information on buying.

Valuable information can be obtained by observing and study-

ing furniture and equipment in stores and in other people's homes, and by asking questions of sales persons and individuals who have bought and used the articles.

Further help may be obtained by subscribing to one of the agencies rating consumer goods, such as Consumers' Research, the Consumers' Union, and the Inter-Mountain Consumers' Service. The service offered by these testing organizations consists of monthly reports which provide confidential information concerning goods on the market.

DECISIONS TO MAKE BEFORE BUYING

The prospective buyer should know what he wants and how much money he can spend. Planning before buying saves time, energy, and money. It also eliminates uncertainty, which may result in a poor purchase.

When possible choices in furnishings and equipment have been determined, each piece should be judged on the basis of its suitability, quality, construction, finish, and care required.

The suitability of any piece of furniture or equipment can be determined best by the person or persons who are to use it. If the article is to serve the purpose for which it is intended, the size, shape, design, and frequently the color will need to be carefully observed and tested before being bought. Such articles as chairs may be tried for size and comfort by actual sitting tests made in the store. Some types of equipment may be tested by lifting and holding; a mechanical or electrical piece of equipment may sometimes be seen in actual operation. The demonstration of the performance or wearing quality of various kinds of materials and equipment in stores is a great help in selection, especially for the inexperienced buyer.

The quality of the material and the construction used in furniture and equipment are not easy to determine. Some manufacturers label their merchandise according to quality, construction, and performance and sell them by these specifications. When adequate labels are backed by tests made in the manufacturer's testing laboratories or in those of stores that sell the goods, the buyer can feel reasonably sure of what he is

buying. In addition to this, a short-time guarantee is made by many manufacturers to satisfy the purchaser if the equipment is unsatisfactory.

The cost of upkeep should be considered thoroughly, since the first cost is seldom the last cost. Frequently, a slightly larger investment at the time of purchase will pay in the long run. For instance, a wool chair covering which costs considerably more than a cotton covering may eventually prove cheaper because of its greater length of service and ease of cleaning. Likewise, a well-constructed egg beater whose cost may be twice as much as others less well made may give excellent service for many years, whereas the others may never be satisfactory and may soon need to be replaced.

The amount of care that different kinds of furnishings and equipment require is an important factor in selection, since it affects to such a large extent the time and energy costs in home-making. Simple types of construction and easily cared for surfaces and finishes help lower these costs.

QUESTIONS FOR THE CONSUMER-BUYER

Although the choice of each piece of furniture and equipment requires special buying information, two general questions may be asked in buying any article. These are:

For what purpose is the article being bought?

Will it serve this purpose?

Points to be considered by the buyer in answering this question are:

I. Suitability

Is the article suitable in design, size, shape, and color for the purpose intended?

II. Durability

Is it made of durable material?

Is it well constructed and finished?

III. Care

Will it be easy to clean and care for?

IV. Guarantee

Is it made by a reliable manufacturer?

The following outlines show how this second question may be used and answered in the selection of an article of furniture and equipment. Since the best way to tell the difference between good and poor furniture and equipment is to learn the characteristics of the good and to use this information as a standard by which other qualities may be judged, only the characteristics of high-quality articles are given in the outlines.

BUYING A CHAIR

For what purpose is the article being bought?

To provide a comfortable chair for reading and resting.

Will it serve this purpose?

Considerations of the buyer:^{3, 4}

I. Suitability

1. Is the chair attractive and well designed?

Easy chairs are now more slender in line, because of new types of padding and spring construction. They provide the same comfort and ease as the larger heavy over-upholstered types.

2. Is the outer covering a suitable color, texture, and design?

The color, texture, and pattern of the upholstery fabric should be considered in relation to other textile materials in the room.

3. Is the chair comfortable and soft, fitting and supporting the body?

When the buyer sits well back in the chair the feet should rest comfortably on the floor with no feeling of pressure under the knees. A backward slope of the seat and a slight slant of the back gives greater sitting comfort.

II. Durability

Outer covering

1. Is the material of good quality? Is the cover well tailored with trimmings used sparingly?

Closely woven materials of wool, or wool and silk, make the most durable chair coverings. The fabric should be considered both from the standpoint of use and that of ease of cleaning and care.

³ Florence E. Wright and Charlotte W. Brenan, "Your Money's Worth in Furniture," *Home Economics Extension Bulletin* 297, 1934, pp. 25, 26, 28.

⁴ M. Attie Souder and Jean Muir Dorsey, "Choosing Chairs for Comfort," *Ladies' Home Journal* (February, 1931), p. 101.

Frame*Exposed part*

2. Is the exposed part of the frame made of durable, beautiful, well finished wood?

The best grades of wood which are hard and strong, either solid or with veneers, are the most desirable. Durable materials used for finishing are varnish, lacquer, oil, or oil and wax.

Covered part

3. Is the chair frame made of hard wood which is strong and holds tacks firmly?

The strength of an upholstered chair depends on its frame.

4. Are the joints closely fitted and doweled or dovetailed, screwed and glued? Is the frame reinforced with corner blocks glued and screwed in place to give strength? Are the arms reinforced with metal where they meet the seat frame?

This type of construction makes the strongest chairs.

Webbing

5. Is the webbing of good quality and are the strips placed close together and well fastened to the frame?

A strong, closely woven grade of webbing gives strength and keeps the seat in shape.

Springs

6. Are double coil springs used in seat and back? Are they placed close together, but not touching and tied with eight knots? Are the outer springs reinforced with extra ties? Is an edgewire attached to the top of outside of seat springs with twine to give extra support?

The number and type of springs used and the manner in which the springs are fastened together to the webbing and the frame affect the resiliency, comfort, and lasting qualities of the chair.

Burlap

7. Are the springs covered with burlap?

Burlap covering is tacked to the frame of the chair and sewed to the top of the springs. This helps prevent the springs from spreading.

Stuffing and padding

8. Is a good grade of horsehair used in stuffing? Are firm rolls of foundation padding used on the sharp edges of the wooden frame? Is the stuffing covered with a good grade of cotton felt with a strong muslin cover over all?

Two layers of hair stuffing with burlap between the layers makes the most durable type of construction. Good foundation padding prevents the sharp edges of the wooden frame from wearing through the outer covering. A pad of felt covered with muslin makes a smooth, even base on which to stretch the outer covering.

Cushion

9. Is the cushion made of feather-proofed ticking channelled three or more times across, stuffed with down or a mixture of 75 per cent down and 25 per cent goose feathers?

Down and feathers make soft, durable stuffing for cushions. Feather-proofed ticking prevents the feathers from working out through the upholstery material. When the cushions are channelled the feathers stay in place and the cushions keep their shape.

III. Care

1. Will the outer fabric be easy to clean and care for?

Closely woven wool fabrics are the most easily cleaned.

IV. Guarantee

1. Is the chair made by a reliable manufacturer? Is it labeled? If so, what information is given?

The laws of many states provide that any article of upholstered furniture sold must bear a tag giving:

The name of the material used for stuffing both the body and cushion. Whether such stuffing material is new, old, or second-hand.

A statement that the material has been sterilized.

BUYING A PARING KNIFE

For what purpose is the article being bought?

To provide an efficient and comfortable tool for paring, slicing, and dicing vegetables, fruits, and other foods.

Will it serve this purpose?

Considerations of the buyer:⁵

I. Suitability

1. Is the blade a convenient shape, length, and thickness?

A blade that is well designed for the work to be done greatly simplifies the task. Three inches is a convenient length for a general purpose paring knife. A $2\frac{1}{2}$ -inch blade is excellent for rapid paring. When the blade is too long, the knife is awkward to use. A thin blade is easy to control and is more effective than one that is too thick.

2. Does the blade taper from the back to the edge?

To be efficient a blade should be ground so that it tapers from the back to the cutting edge.

3. Is the handle a comfortable size, shape, and length?

A handle that is either too small or too large cramps the hand. A handle should feel smooth and comfortable, be easy to grasp, and exert no unusual pressure on any muscle in the hand when the knife is in use.

⁵ Jean Muir Dorsey, "Paring Knives That Will Pare," *American Home* (September, 1956), pp. 76, 78.

4. Do the handle and blade feel well balanced?

When the balance is right, the knife can be easily used when held in a paring position.

II. Durability**1. Is the blade made of high-quality steel that will take and hold a good edge?**

The performance of a paring knife depends to a large extent on the kind and quality of steel used in the blade. Steels of high-quality contain a high percentage of carbon. A high-carbon steel blade not only will take and hold a keen edge but also is easily sharpened.

2. Is the handle securely fastened to the blade?

Tubular rivets are superior to the wire or pin rivets, as they prevent the handle from loosening and collecting dirt.

3. Is the handle made of durable material?

Wood handles of rosewood, walnut, cocobolo, beech, maple, and boxwood give good service. Some of the synthetic materials are equally durable.

4. Is the finish of the handles smooth, nonabsorbent, and of material that will not stain the hands?

A durable finish preserves the wood and makes the handles more comfortable to use.

III. Care**1. Is the handle smooth and non-dirt collecting?**

The joining between the blade and handle should be smooth and easy to clean.

2. Is the blade made of stainless steel. If not, can it be easily cleaned?

High-quality carbon steel may or may not be stainless.

IV. Guarantee**1. Is the knife made by a reliable manufacturer?**

The name of a reputable manufacturer is the safest guide in buying a quality product.

2. Is the knife stamped with the name of the manufacturer?

A reliable manufacturer usually puts his name on his products.

3. Is the knife labeled?

The kind and quality of steel and the material used in the handle are often stamped on the knife. Sometimes this information is given on an attached label.

**PLANNING FOR THE CARE OF THE HOUSE, FURNISHINGS,
AND EQUIPMENT**

To keep the house, its furnishings, and equipment in good repair, considerable time and energy are required of some

member or members of the family, or as an alternative, money must be spent to pay for help or for having some of the work done by an outside agency.

The time studies reported in Chapter V showed that house activities, which included care of the house, furnishings, and equipment, required 15 to 18 per cent of the homemaker's working time. The energy cost studies showed that these activities were the ones that made the greatest energy demands on the worker, and the fatigue studies disclosed that these activities were the most fatiguing. To maintain a reasonable standard of cleanliness without too great an expenditure of time and energy is one of the managerial problems in homemaking.

One of the easiest ways to manage the cleaning of the house and its furnishings and equipment is to make a definite but flexible plan for the cleaning tasks to be done daily, weekly, monthly, semiannually, and annually. Each homemaker's plans must be adapted to her particular household and the dirt-producing conditions in the neighborhood and about the house. In all households the cleaning plan must dovetail with the other daily and weekly tasks that must be performed by the homemaker and her helpers.⁶ ⁷

⁶ Carol Willis Moffett, "House Cleaning Management and Methods," *Farmer's Bulletin 1834*, U. S. Department of Agriculture, 1940, pp. 1-3.

⁷ Tessie Agan, *The House*, pp. 560-562.

CHAPTER XXII

SOME MANAGERIAL ASPECTS OF FEEDING THE FAMILY

THE PROBLEM OF FOOD MANAGEMENT

The responsibility of feeding a family may be broken up into a series of groups of activities or major managerial problems which make up the larger or total food-management problem.

Briefly stated, food management is the provision of food for the family to ensure physical growth, social and psychological development and well-being, with a reasonable expenditure of available resources, both human and material.

Food management progresses from the initial planning of meals and menus through the choosing of the market to the buying problem, the storing of food supplies and equipment, planning for the preparation of meals, planning for the service of prepared food to the family, organizing the clearing away at the close of the meal, restorage of food, and finally making adjustments of plans for the next meal or the meals for the rest of the day.

This progression represents the major groups of activities to be planned for and carried to completion. Within each major problem or group of activities will be found many smaller management decisions incident to solving the major unit.

In stating the problem of food management, the expression *reasonable expenditure* of resources is used. What constitutes a reasonable expenditure for a given family can be arrived at only through careful planning and analysis on the part of the manager in each home. No easy way to solve food-management problems exists; solution is attained only through *thinking, weighing values, and using resources wisely* in terms of family living.

Associated with and as a part of these current food-management problems are the planning for and the provision of ade-

quate equipment, utensils, and linens to be used in providing the family with its food. These appointments are highly individual and will vary from family to family as needs, desires, and the living patterns of the families vary. They will also vary within the life cycle of a family as it progresses from one stage to another. A given family may be underequipped at one stage and overstocked at another. Fine discrimination between real need and spurious need marks the degree of excellence of management and determines wise or unwise use of resources.

INFLUENCE OF FAMILY RESOURCES ON THE SOLUTION OF FOOD-MANAGEMENT PROBLEMS

ANALYSIS OF FOOD MANAGEMENT

An analysis of the relationship between available family resources and the problems encountered in feeding a family is presented in the chart on page 362. The family resources listed are those set forth in the section on home management, page 29. The groups of activities designated are the major management problems in feeding one's family, regardless of its size and composition. The first management problem listed is meal-planning, or its higher level, menu-making. Menu-making means planning ahead for the day's meals or for several days' meals.

As shown in the chart, planning meals draws upon six human resources and two material resources. The human resources are *capacities* and *energy* of the manager; *abilities* of the manager; *social heritage* from which the family largely receives its food standards; *attitudes* which influence the whole family's approach to the food problem; and *knowledge* in terms of nutrition, income allotment for food, food available, food prices, and market conditions. *Time* and *money* are the two material resources needed to solve the meal-planning problem. The more exact the knowledge of the amount of time required to do a job and the knowledge of the speed of the worker, the better will be the actual use of time.

Obviously not all families have in equal amounts the resources needed for solving the problem of meal-planning. This

FAMILY RESOURCES AFFECTING THE SOLUTION OF MAJOR MANAGEMENT PROBLEMS OF FEEDING THE FAMILY

<i>Major Food-Management Problems</i>	<i>Resources Used in Solution</i>
I. Meal-planning and menu-making	1. Capacities 2. Abilities 3. Attitudes 4. Knowledge 5. Human energy 6. Time 7. Social heritage 8. Money
II. Choice of the market	1. Capacities 2. Abilities 3. Attitudes 4. Knowledge 5. Human energy 6. Time 7. Money 8. Free goods and services 9. Mechanical energy
III. Buying	1. Capacities 2. Abilities 3. Attitudes 4. Knowledge 5. Human energy 6. Time 7. Money 8. Social heritage
IV. Storage	1. Capacities 2. Abilities 3. Attitudes 4. Knowledge 5. Human energy 6. Time 7. Money 8. Mechanical energy
V. Preparation	1. Capacities 2. Abilities 3. Attitudes 4. Knowledge 5. Human energy 6. Time 7. Social heritage 8. Money

VI. Food service

1. Capacities
2. Abilities
3. Attitudes
4. Knowledge
5. Human energy
6. Time
7. Social heritage

VII. Cleaning-up processes

1. Capacities
2. Abilities
3. Attitudes
4. Knowledge
5. Human energy
6. Time
7. Social heritage

VIII. Restorage

1. Capacities
2. Abilities
3. Attitudes
4. Knowledge
5. Human energy
6. Time
7. Social heritage
8. Mechanical energy

IX. Choice and use of equipment and utensils

1. Capacities
2. Abilities
3. Attitudes
4. Knowledge
5. Human energy
6. Time
7. Social heritage
8. Money
9. Mechanical energy

X. Choice and use of linens and accessories

1. Capacities
2. Abilities
3. Attitudes
4. Knowledge
5. Human energy
6. Time
7. Social heritage
8. Money
9. Mechanical energy

fact accounts in part for the different solutions of this problem found from home to home. For example, consider the family with restricted money, in which the homemaker also has restricted abilities in the area of feeding her family. With two such important resources limited, if the family is to be self-sufficient

and well fed, some other resource will need to compensate for the lack of these two. Perhaps the resource *knowledge* can be used in greater extent, either by taking advantage of knowledge already at hand or by increasing the store of knowledge. This includes not only knowledge of nutrition but also all forms of knowledge that aid in meal-planning. With rather complete knowledge, it is possible to reduce money costs of food. Stiebeling and Ward¹ of the Bureau of Home Economics have shown that, for the minimum-cost diet where approximately 45 per cent of the income is usually spent for food, a reduction of 15 to 20 per cent in cost can be effected by applying knowledge in planning, buying, and using foodstuffs.

Such a process represents alternative use of resources which every individual is called upon to make if one resource is restricted and given standards are to be maintained. In food management, the more able the person is in using resources alternatively as they are restricted, the greater will be the returns in satisfaction. Because such a large part of the money income of the majority of families goes for food, no area in homemaking demands more careful planning than food management.

In the chart on pages 362 and 363 some of the listed resources are called into use in solving all ten food-management problems. In the area of human resources, *attitudes*, *knowledge*, *energy*, and *abilities* are needed in the solution of all the problems. In the area of material resources, *time* is the only one used in the solution of all the problems. *Money* influences the solution of six of the problems.

From this analysis it is evident that the homemaker needs to face realistically and honestly, first, her *attitudes* toward feeding her family; second, her *knowledge*, or lack of it, in the area; and, third, her *abilities* as they relate to solving food-management problems. Thus the homemaker who wishes to solve intelligently the problems of feeding her family will need to view her food management as a whole. Most important, she will need to act on the basis of her analysis of the problems. From such a program of thought and action, order and control should ultimately result.

¹ Hazel K. Stiebeling and M. Ward, "Diets at Four Levels of Nutritive Content and Cost," *U. S. Dept. of Agri. Circ.* 296, 1933.

HUMAN RELATIONSHIPS AND FOOD MANAGEMENT

Two observations frequently made and given as evidence that feeding the family at home is passing from the social scene are (1) the vast number of commercial eating establishments and food shops, and (2) the trend toward houses without dining rooms. Neither of these phenomena indicates such passing. People are eating out and away from home a great deal more than formerly, and yet food is still served in the home.

The house without a dining room is on the scene, but parallel-ing this change has come an increased attention to the kitchen. Even though no dining room may be planned in the house, some space for eating is practically always arranged.

FEEDING THE FAMILY, A GROUP AND AN INDIVIDUAL PROBLEM

Food management is closely concerned with important human relationships. If we accept the philosophy of management de-veloped in this book, Chapter I, food management becomes one method of attaining individual and family goals through the conduct of the activities involved in feeding the family.

Primarily, feeding the family is a group problem since, in the main, members of the family eat the same kind of food prepared for them in a common kitchen, they eat the food together at a common table, and frequently the individual members have shared in some way as a member of the group in preparation, service, and clearing-away processes.

At the same time, feeding the family is an individual problem since the food actually eaten, the conditions surrounding the intake, and the condition of the person at the time he eats the food are all important factors in his individual development. The individual and the group approach to food are often in conflict, and important human-relationship problems may stem from this conflict.

SOCIAL AND PSYCHOLOGICAL ASPECTS OF FOOD MANAGEMENT

Some of the outstanding psychological aspects of food man-agement need only be mentioned.

Problems in meal-planning include the need to plan for

likes and dislikes of members of the family group, for food idiosyncrasies, for the introduction of new foods, and for use of left-over foods. Such meal-planning items as variety, texture, temperature, color, consistency, and many of similar significance, constitute the part of food-planning which is directly related to the mental approach to foods by family members.

A person could be adequately nourished from a physiological point of view on an extremely narrow margin of variety, with colors that are in conflict from an aesthetic point of view, and with monotony in general. Variety is emphasized in meal-planning for eye, mind, and taste appeal. All are important if development and growth of family members are goals in living.

Again, the individual could have an adequate diet with little attention given to table service, to table appointments, to conversation, to surroundings in general. And yet, planning for meal service requires thought and consideration to types of service, forms, and conduct. These constitute psychological and social phases of our feeding and eating mores which cannot be ignored. Attention to them gives rise to conditions in which quality of group relationships are nurtured, attitudes in individuals are built up, and quality of family life developed. These important values in group life cannot be overlooked, and they should be planned for, along with planning for strong and healthy bodies.

Another important part of the food-management responsibility in considering the psychological approach to foods covers the managerial activities embodied in guidance. To stimulate and to energize young members of the family so that they will want to take part in family life, particularly in activities centering around providing food for the family, instead of being "drafted" to those jobs, requires careful planning. The whole responsibility of training and guidance in child feeding demands, beside knowledge, much preplanning and revamping of plans during the progress of the training period.

Many more illustrations could be given showing the social and psychological aspects of the food-management problem, for they are endless. No feeding problem is completely divorced from human relationships. The responsibility of each homemaker is

to find the important implications in her own situation and to plan an action program to solve the problems as they arise.

PHYSIOLOGICAL ASPECTS OF FOOD MANAGEMENT

All too frequently the physiological aspects of food management are thought of and treated as a problem in nutrition alone. Important as nutrition is, and it is extremely important, it is only a part of the food picture. Among the many problems of physical well-being which must be coordinated are:

Planning and organizing conditions for food production which are sanitary and which conserve human energy.

Planning and choosing equipment and appointments which conserve energy.

Developing buying practices and habits which are not wasteful of human energy.

Building up family attitudes which respect individuals and their contribution and do not exploit them.

Planning for and helping to build attitudes for group participation which result in sharing activities related to provision of food for the family.

Recognizing the necessity of planning for and developing techniques which reduce time and energy costs in food work.

TIME AND ENERGY MANAGEMENT IN FEEDING THE FAMILY

TIME INPUT IN FEEDING THE FAMILY

The importance of time and energy management in feeding the family is indicated both by the fact that time is used in the solution of all the food-management problems, and by the time and energy costs studies reported in Chapter V. According to these data, the feeding of the family, which includes the preparation and serving of food and clearing away after meals but not the planning or purchasing, is the most time-consuming activity in the household. The data show that nearly one-third, from 30 to 31 per cent, of the working time of farm and urban homemakers was spent in feeding their families. These figures, which include only work time, would run considerably higher if the time spent in planning and purchasing were added.

How to control and lower time and energy costs in feeding the family is a major consideration of every homemaker. In many homes the attitude toward the food responsibility is often the cause of wasted time and energy. If the homemaker dislikes or feels superior to the responsibility, or has the feeling of a martyr toward it, the time and energy input will be affected because of tension, feeling of fatigue, and slowed reaction time. If, on the other hand, she looks at her food responsibility as one which must be met, repetitive though it be, if she meets it to the best of her ability, and does not allow the responsibility to disturb her, time, energy and fatigue—particularly fatigue—will be under control.

In some homes better planning may be needed; in others better execution of plans. More adequate equipment or even better use of equipment at hand may also reduce time and energy input.

CONTROLLING TIME AND ENERGY COSTS IN FEEDING THE FAMILY

That feeding the family is repetitive, is insistent, is time- and energy-consuming is evident. What to do about it is less certain. That there is wasteful and inefficient use of time and human energy in feeding the family is also evident, although the extent and degree of waste is not certain, since there are no accurate measures of these things. Because competition is not operative between homes, the less efficient or marginal homemaker is not weeded out. Since this is true, there will always be a wide variation in the way time and energy are used, that is, unless regimentation becomes a part of the American way of life.

Improved use of time and energy will come only as each homemaker studies her own situation and consciously develops attitudes and convictions that act as stimuli for improvement in this area. Therefore, the remainder of this section is devoted to suggested methods of controlling the time and energy input in feeding a family.

Time and energy are the resources used in solving all ten managerial problems found in feeding the family. Energy is used in solving the seven problems which entail physical action, that is, choice of the market, buying, preparation of food,

food service, clearing-away processes, choice and use of equipment and utensils, and choice of linens.

Instead of reviewing the individual management problems with suggested methods of control for each, general principles will be discussed which will be effective in the majority of instances.

Mental Flexibility, a Time- and Energy-Conserver. Mental flexibility or inflexibility determines ways of thinking and is thus directly connected with the attitudes and philosophy of life of the individual. Attitude, it will be remembered, is important in solving all ten major food-management problems. Mental flexibility helps the person to see and plan ahead, and, what is more important, to adjust the plan as action takes place.

The mentally inflexible person is bound by custom, by fears of opinions of neighbors or others, and by set methods of procedure. She is unable to see others' points of view and in general is likely to be prejudiced. The mentally flexible person weighs custom, respects opinions but is not dominated by fear of others' opinions, is experimentally minded and tries various methods of procedure until she arrives at the best method for use under her given circumstances. She is not confused by change but is able to adjust to the new or disturbed situation, is open-minded, considers the points of view of others in making decisions, and is not likely to force her opinion on others.

Now let us relate these characteristics to time and energy use in feeding one's family. If the homemaker is mentally flexible, she will weigh the values in the dictates of custom, the resources available, and the needs of her family and will act on the basis of the analysis.

For example, custom or practice in the locale dictates white tablecloths for dinners, particularly if guests are to be present. The linens and table appointments of the homemaker include extremely informal permanent-finish place mats, grass mats, colorful and interesting texture doilies, nicer Italian linen handmade doilies, as well as white damask cloths. Regardless of the dictates of custom in the locale, this mentally independent and flexible homemaker will choose, from her stock, the table service to fit the occasion. If time and energy are restricted in either care of linens or the service itself, she will decide upon and use

that service and linen which conserves the restricted resource. The choice may result in a guest dinner with grass mats and colored napkins instead of a white linen cloth. Under the circumstances, the use of linen damask might be needlessly wasteful of energy from a number of angles. The homemaker in this situation has not been bound by custom but has felt free to use her own judgment and has acted according to her thinking and analysis.

Mental flexibility saves energy through removing or reducing tension, worry, and fatigue. The anxiety that comes from mental inflexibility about food and food service can be the cause of much unhappiness in a family.

It must be remembered that, even though a plan has been made in advance, no plan is sacred, for it is made to direct the course of action to prevent detours and lost motion, not to dominate the life of someone. The mentally inflexible person follows the plan regardless of the consequences; the flexible one adjusts as conditions arise to call for change.

For example, the menu for the day has been made by a certain Mrs. Adams, and plans for the day seem well in hand. The menu reads:

BREAKFAST

Orange juice
Fried cornmeal mush with maple syrup
Coffee and milk

LUNCHEON

Baked tuna and homemade noodles
Gelatine vegetable salad
Breadsticks
Applesauce
Tea

DINNER

Rolled rib roast
Mashed potatoes
Vinegared beans
Raw carrot and raisin salad
Chocolate cake
Coffee

Guests are in the house, the supplies for the meals have been purchased, but an emergency arises which makes *time* a restricted resource. The mentally flexible person will not become confused and tense but will rise to the occasion. Guests are here, so meals must go on. She quickly adjusts her plans. She saves time, yet uses all the original foods in the following menu:

BREAKFAST

- Whole oranges
- Cornmeal mush heated in whole warm milk
- Toast
- Coffee and milk

LUNCHEON

- Creamed tuna on the breadsticks
- Mixed vegetable salad
- Whole apple or fruit plate
- Tea

DINNER

- Rolled rib roast
- Baked potatoes
- Buttered beans
- Carrot strips
- Chocolate pudding
- Coffee

Within each managerial problem of feeding the family lies potential adjustment as plans are in process of being evolved or are being put into effect. The mentally flexible person is able to reduce time and conserve energy through her ability to plan with flexibility and to reshape or adjust plans as the work of the day goes forward.

The Principle of Dovetailing in Food Management. As the term implies, dovetailing is fitting together parts of a whole in such a manner that these parts wedge in and work in harmony, resulting in a unified and easy-moving whole. In solving problems in homemaking, dovetailing parts of or whole operations as plans are made or work goes forward tends to reduce time and energy input and at the same time effects a smoother-running home.

In solving the various management problems in feeding one's family a number of possibilities are apparent for dovetailing parts of or whole operations to control and reduce time and energy costs. A few illustrations will demonstrate the principle.

Dovetailed Meals. Dovetailing may be used in menu-making both in preparation of food and purchase of foods. Dovetailing of the first type is planning larger quantities of certain foods with a portion to be used in one form on one day and the remainder in a different form on a later day. Of the second type, certain items not ordinarily on the staples also can be purchased in quantity, and these same foods used in different forms. Such dovetailed planning can be used without sacrificing adequate variety to satisfy individual taste; at the same time it saves time and energy in that it allows the preparation and purchase of larger quantities of a given food and removes duplication of effort. It does, of course, assume storage space adequate to care for the prepared food and a family small enough to avoid having the preparation fall into large-quantity cookery amounts. For the family of five or fewer, the principle in operation reduces time and releases energy, and also reduces the feeling of inconsistency and repetitiveness always present when facing the responsibility of feeding the family.

A period of three days marks a favorable time limit for planning dovetailed meals, since the possibilities of too much duplication day by day is high with a shorter period. Although a period longer than three days can be chosen, the manner of life of the average American makes the week fall rather generally into two parts, weekend and the rest of the week. The combination of days in the two parts varies from home to home. For the purposes of this demonstration the three-day period Tuesday, Wednesday, Thursday will be used.

Study the set of menus below. The numbered entries in italics indicate dovetailing planned for thorough preparation. Note there are nine incidents of dual preparation. The lettered entries in bold-face type indicate dovetailing through purchase. There are five such occurrences. Now note the incidents of dual preparation which also allow dovetailed purchase. There are five such cases, or numbers (4), (5), (7), (8), (9). The remainder of

TUESDAY	WEDNESDAY	THURSDAY
BREAKFAST	BREAKFAST	BREAKFAST
(a) Fresh apricots (1) <i>Cornmeal mush and milk</i> Toast Coffee and milk	Orange juice (1) <i>Fried cornmeal mush and maple syrup</i> Coffee and milk	Grapefruit juice (6) <i>Rice and dates with cream</i> Toast Coffee and milk
LUNCHEON	LUNCHEON	LUNCHEON
(b) Hot cheese sandwiches (c) Combination salad (2) <i>Fresh chocolate cake</i>	(3) <i>Baked tuna and noodles</i> (4) <i>Gelatine vegetable salad</i> Breadsticks (7) <i>Applesauce</i>	(b) Cheese souffle (9) <i>Potato salad with baby onions (5)</i> (a) Fresh stewed apricots Tea
DINNER	DINNER	DINNER
Veal cutlets (3) <i>Buttered homemade noodles</i> (4) <i>New peas and baby onions (5)</i> (d) Raw beets and spinach salad	(8) <i>Rolled rib roast</i> (9) <i>Browned potatoes</i> (d) <i>Vinegared beans</i> (e) <i>Carrots and celery salad</i> (2) <i>Chocolate cake and caramel sauce</i>	(8) <i>Sliced cold rib roast</i> Corn on the cob (e) Glazed carrots (c) <i>Sliced tomatoes</i> (7) <i>Apple crisp</i> Coffee

Italics are used to indicate dovetailing in preparation.

Bold-face entries show dovetailing in purchasing.

the dual preparation items arise from use of staples, such as cornmeal, flour, eggs, butter, chocolate, rice, etc. On the other hand, note that, aside from beverages and bread, each day sees but one or two food items not dovetailed in some manner.

The dovetailing principle in food management may also be applied in connection with the more usual incidents in *food preparation and service*. A listing of suggestions follows:

Oven, electric roaster, or steamer meals not only reduce time and energy costs but may also reduce cost of fuel.

While making preparation for one meal, or during a period of time when operating in the kitchen, prepare items for future meals. For example, preparation of vegetables for dinner may be started at noon, while waiting for a luncheon dish to cook or during the clearing-up period after breakfast before starting other responsibilities.

Food preservation, such as making jellies or canning, may be dovetailed with current food preparation. This planning can extend back to the planting of the garden, if food is produced at home. Planning to have foods come into maturity in succession, instead of all at once, spreads out the extra canning load and uses energy and time more equitably. Corn or peas, for example, can be planted at several-day intervals in order to effect this progression. The same principle can be used in purchasing foods for canning, unless the product is one which has a very short season of maturity, when it may be necessary to plan differently.

Simplifying food service by dovetailing courses saves time and energy, such as at luncheon placing the dessert on the table with the other course before the family assembles. The luncheon menu for Tuesday on the dovetailed meal chart, page 373, would easily permit dovetailing the luncheon service.

Simplifying food service by dovetailing the use of dishes not only saves time but also adds interest and charm to the meal. Why not arrange the meat and vegetables attractively on the same platter or chop dish? With inexpensive modern pottery and wooden trays, such a variation is highly acceptable to the family.

Other suggestions which simplify and preserve charm in service are: the use of a dish for several purposes, such as salad plates for both salad and bread and butter; dinner fork for both dinner and salad when served at the same time; salad served from a tray directly to the dinner plate; or dessert served at the table by the hostess and passed for individual serving. These methods of simplification all refer to family or informal and not formal service.

Another potential *dovetailing practice* is the *integrating of operations* connected with feeding the family with other homemaking responsibilities. The more completely the homemaker is able to synchronize the various operations she is called upon to perform, the greater will be the reduction of time and energy put into all. Dovetailing helps to make a "unified whole" pattern of homemaking rather than a "one job, plus another job, plus another job" pattern.

Integration of responsibilities is a result of planning *before*

action instead of acting with little or no prethought. Again a listing of suggestive incidents will demonstrate the principle.

Dovetail food preparation and account keeping.

Carry on food preparation and laundering operations concurrently.

Many examples of dovetailing kitchen work and child training can be given. Perhaps the young child is interested in food preparation and is learning through working along with mother in the kitchen at a smaller production unit. Perhaps the major guidance responsibility at the moment is toilet training. With the child playing near the kitchen, with equipment planned in close proximity to avoid added time and energy in going up and downstairs to the toilet, the training can be dovetailed with the house work.

Or perhaps the child or children are adolescent instead of young. Allowing adolescents to participate in family food preparation through helping at fun or pleasure times, such as in serving guest meals, builds up desires to help. Group spirit is developed, the child learns techniques, and both time and money may be conserved. Adolescent training and food preparation may both be furthered by allowing some choice in the division of labor. For example, a boy or girl may eagerly choose the filling of the cookie jar as his or her contribution to the family feeding.

Family food and family hospitality, adult and youth, can be dovetailed. A buffet supper for adults may go forward in the dining room and living room while the young people serve and have a kitchen party, or vice versa. At the traditional Christmas or New Year's "at home," when the children are old enough to stay up after the guests arrive but are too young to partake in adult gatherings, a young people's secondary at home can be in progress in the basement or in a child's personal bedroom converted temporarily into a play and living room. One family solved its adolescent participation and development problem by converting a large bedroom into an upstairs living room which could be used by either adults or young people.

CHOICE OF EQUIPMENT, UTENSILS, AND LINENS, AS TIME AND ENERGY CONTROLS

The choice and the use of equipment, utensils, and linens have been given among the major problems in food manage-

ment in the chart on page 363. The solution to the part of this problem that affects the time and energy input in feeding the family is of interest here. The choice of these three groups of goods, in the main, is influenced by (1) the need for the product, (2) the storage problem, (3) the choice of materials that affect time and energy, and (4) other family needs and finance responsibilities. These phases of choice have been discussed in detail under "Choosing Equipment and Furnishings" in Chapter XXI. Full treatment of the points of choice relating to time and energy costs is given on page 349.

THE STOCK OF FOOD ON HAND

A homemaker may order butter not by the quarter pound but according to her week's needs. She may have a can of beans and a can of brown bread on hand for an emergency lunch. She may even have a fairly large number of supplies in her cupboard, and yet be wasting time and energy because of lack of planning in stocking needed staples.

The well-stocked cupboard is not an emergency shelf; nor is there any need for such a shelf if a cupboard is well stocked. The well-stocked cupboard, small or large, includes a well-chosen variety of staple foods, condiments, and canned goods, the choice of which is based upon family likes and needs. In this connection it might be well to characterize a "food staple." A staple is the principal element or chief item of a stock of goods. For instance, curry might not be a staple in the cupboard of a native Iowan, but it would be in the stock of the person from East India, since curry is a principal ingredient of East Indian dishes. The choice of staples for the modern household depends upon the tastes, the living habits, the customs of the family, and the availability of goods in the locale.

Staples in the past were thought of as the semiperishables, such as sugar, flour, and cereals, which could be stored for longer periods of time with less deterioration than more highly perishable products. Modern transportation, improved merchandising methods and refrigeration, plus additional knowledge of nutrition, have increased the list of staples in the American home. Most families now consider as staples milk delivered at the door daily, butter, eggs, oranges and other citrus fruit.

In order to build up a well-stocked cupboard, the homemaker needs to consider carefully the foods most often used by the family, together with the quantities required. She needs to recognize the food likes of members, and to study the varieties and grades of foods suitable for different purposes. To be effective, the cupboard further calls for some device for checking on the contents of the shelves to ensure necessary replacement and thus to avoid delay and inconvenience that might occur if certain supplies were missing when needed.

An objection sometimes raised against the well-stocked cupboard is that the initial money cost is so great that the value of the time saved is canceled. This point of view overlooks the major objectives of such a cupboard, which is adequacy of choice and not quantity on the shelf. The orginal cost may be high if the stock is purchased all at one time, but this is not necessary. The contents can gradually be built up and added to, and, if purchases are made according to a well-thought-out plan, the cost is likely to be less than and certainly is no greater than when purchases are made haphazardly.

The more foods one can bring into the staples list on the shelves of the well-stocked cupboard, the greater will be the reduction of time and energy costs in food management.

THE EFFECT OF INCOME ON PROBLEMS OF FOOD MANAGEMENT

AMOUNT OF INCOME SPENT FOR FOOD

Figures 20 and 21 on pages 260 and 262 showing the percentage use of income and allocation of family expenditures by American families in 1935-1936 should be examined to see the way families spent their incomes. Observe particularly the change of the percentage of income going to food as income changed.

The levels of income represented in the figures ranged from under \$500 to \$20,000. Food was the largest single category of family expenditure below the \$15,000 and over level. Although the actual amount of money spent for food increased as incomes of these families increased,^{2, 3} the percentage of the total income spent for food decreased as the amount of income increased.

² See Table XXIX.

³ *Consumer Expenditures in the United States*, pp. 19 and 23.

In the lowest-income group, under \$500, food required 65 per cent of the average income. Since this group either used savings, borrowed, or was subsidized, food accounts for about 44 per cent of family expenditures, Figure 21. Consumers on the \$750 to \$1,000 income level spent about 43 per cent of their incomes for food, which demanded on the average 41 per cent of total family expenditures; on the \$1,250 to \$1,500 level about 35 per cent went for food; on the \$2,000 to \$2,500 level about 27.8 per

TABLE XXXVIII

AVERAGE FOOD EXPENDITURES OF AMERICAN FAMILIES INCURRED AS MONEY EXPENSE AND AS IMPUTED VALUE OF HOME-PRODUCED FOOD, BY INCOME LEVEL,
1935-1936*

Income Level	Average Expenditure per Family for			Percentage of Food Expenditures Incurred as	
	Total Food	Money Expense for Purchased Food	Imputed Value of Home-Produced Food †	Money Expense for Purchased Food	Imputed Value of Home-Produced Food †
Under \$500.....	\$ 203	\$ 156	\$47	76.8	23.2
\$ 500-\$ 750.....	310	229	81	73.9	26.1
\$ 750-\$ 1,000.....	380	300	80	78.9	21.1
\$ 1,000-\$ 1,250.....	433	357	76	82.4	17.6
\$ 1,250-\$ 1,500.....	487	402	85	82.5	17.5
\$ 1,500-\$ 1,750.....	527	450	77	85.4	14.6
\$ 1,750-\$ 2,000.....	558	490	68	87.8	12.2
\$ 2,000-\$ 2,500.....	617	553	64	89.6	10.4
\$ 2,500-\$ 3,000.....	690	619	71	89.7	10.3
\$ 3,000-\$ 4,000.....	770	696	74	90.4	9.6
\$ 4,000-\$ 5,000.....	852	786	66	92.3	7.7
\$ 5,000-\$ 10,000.....	1,038	969	69	93.4	6.6
\$ 10,000-\$ 15,000.....	1,214	1,169	45	96.3	3.7
\$ 15,000-\$ 20,000.....	1,785	1,733	52	97.1	2.9
\$ 20,000 and over.....	2,261	2,219	42	98.1	1.9
All levels.....	467	395	72	84.6	15.4

* *Consumer Expenditure in the United States*, p. 79.

† Figures for home-produced food cover rural families only.

cent of the income was spent for food, while it accounted for 31 per cent of family expenditures; and the \$2,500 to \$3,000 group spent 25 per cent of the income for food, with 30 per cent of total family expenses going to feeding the family.

The food items represented in this study covered food purchased in retail markets, imputed value of home-produced food used by the family, cost of meals out, candy, and beverages. The home-produced food made up only a small part of urban and city food expenses, particularly in the families included in the upper income levels. For farm families, home-produced food represented 50 per cent of the total food expenses at most levels. For the families with incomes below \$500, the average imputed value of home-produced food amounted to about 23 per cent of the total food expenses, while in the average for all families home-produced food was a comparatively minor item.⁴ (See Table XXXVIII.)

In the bulletin "Diets to Fit Family Income"⁵ Carpenter and

TABLE XXXIX

CHOOSING A DIET TO SUIT THE INCOME OF A FAMILY OF FOUR (TWO MODERATELY ACTIVE ADULTS, A 10-YEAR-OLD BOY, AND AN 8-YEAR-OLD GIRL)*

Family of 4 with income of about		Spending for food approximately		Could purchase, at 1935 city retail prices, this kind of diet
Per year	Per week	This percentage	This amount per week	
\$6,000	\$115	14 or more	\$16.25 or more	Liberal
5,000	100	16	16.25	Do.
4,000	75	22 or 16	16.25 or 12.25	Liberal or moderate-cost
3,000	60	27 or 20	16.25 or 12.25	Do.
2,500	50	25	12.25	Moderate-cost
2,000	40	31 or 23	12.25 or 9.15	Moderate-cost or minimum-cost
1,800	35	26	9.15	Minimum-cost
1,500	30	31	9.15	Do.
1,250	25	37	9.15	Do.
1,000	20	46	9.15	Do.
800	15	61 or 41	9.15 or 6.15	Minimum-cost or restricted
600 or less	12 or less	51 or more	6.15	Restricted

* Rowena S. Carpenter and Hazel K. Stiebeling, "Diets to Fit the Family Income," *Farmers' Bulletin* 1757, United States Department of Agriculture, 1936, p. 3.

⁴ *Ibid.*, p. 24.

⁵ Rowena Carpenter and Hazel Stiebeling, "Diets to Fit the Family Income," *Farmers' Bulletin* 1757, United States Department of Agriculture, 1936.

Stiebeling show how the income and the amount allocated for food is related to the quality of diet for families of various composition. Tables XXXIX, XL, and XLI show this relation-

TABLE XL

CHOOSING A DIET TO SUIT THE INCOME OF A FAMILY OF TWO MODERATELY ACTIVE ADULTS*

Family of 2 with income of about		Spending for food approximately		Could purchase, at 1935 city retail prices, this kind of diet
Per Year	Per week	This percentage	This amount per week	
\$3,000	\$60	14 or more	\$8.60 or more	Liberal
2,500	50	17	8.60	Do.
2,000	40	22 or 16	8.60 or 6.40	Liberal or moderate-cost
1,800	35	25 or 18	8.60 or 6.40	Do.
1,500	30	21	6.40	Moderate-cost
1,250	25	26 or 19	6.40 or 4.85	Moderate-cost or minimum-cost
1,000	20	32 or 24	6.40 or 4.85	Do.
800	15	32	4.85	Minimum-cost
500	10	49 or 33	4.85 or 3.25	Minimum-cost or restricted
400	8	61 or 41	4.85 or 3.25	Do.
300 or less	6 or less	54 or more	3.25	Restricted

* Rowena S. Carpenter and Hazel K. Stiebeling, "Diets to Fit the Family Income," *Farmers' Bulletin* 1757, United States Department of Agriculture, 1936, p. 3.

TABLE XLI

CHOOSING A DIET TO SUIT THE INCOME OF A FAMILY OF SEVEN (TWO MODERATELY ACTIVE ADULTS, A GIRL 15, A BOY 13, A BOY 10, A GIRL 8, AND A CHILD 3)*

Family of 7 with income of about		Spending for food approximately		Could purchase, at 1935 city retail prices, this kind of diet
Per year	Per week	This percentage	This amount per week	
\$9,000	\$175	16 or more	\$27.50 or more	Liberal
7,500	145	19	27.50	Do.
6,000	115	24 or 18	27.50 or 21.00	Liberal or moderate-cost
5,000	100	21	21.00	Moderate-cost
4,000	75	28 or 21	21.00 or 15.50	Moderate-cost or minimum-cost
3,000	60	35 or 26	21.00 or 15.50	Do.
2,500	50	31	15.50	Minimum-cost
2,000	40	39	15.50	Do.
1,500	30	52 or 35	15.50 or 10.50	Minimum-cost or restricted
1,250	25	62 or 42	15.50 or 10.50	Do.
1,000 or less	20 or less	53 or more	10.50	Restricted

* Rowena S. Carpenter and Hazel K. Stiebeling, "Diets to Fit the Family Income," *Farmers' Bulletin* 1757, United States Department of Agriculture, 1936, p. 3.

ship for three families, a family of four composed of two moderately active adults, and two children, a 10-year-old boy and an 8-year-old girl; a family of two moderately active adults; and a family of seven with two moderately active adults, and five children, a girl 15, a boy 13, a boy 10, a girl 8, a child 3.

The analysis is made on the basis of 1935 city retail prices. It shows both the quality of diet made possible by expenditure of various amounts of money and the change in percentage spent for food as income changes.

CONTROLLING MONEY COSTS IN FEEDING THE FAMILY

The resource *money*, as listed in the chart on page 362, influences the solution of six major management problems: menu-making, choice of the market, buying, storage, choice and use of equipment, and choice and use of linens. Furthermore, it will be remembered that an important part of the human resource *knowledge* was related to money costs. Knowledge is here expressed in terms of the amount of money allocated from the annual or monthly income and earmarked for food, either arbitrarily decided upon or an allocation made on the basis of planning and knowledge of family expenditures in the past. Knowledge may be expressed in terms of food prices, which in turn influences the choice of the market and individual buying habits. Thus any attempt to control money costs in feeding the family meets with a complexity of interrelated factors which are not easy to discern until a rather thoroughgoing analysis has brought each to light.

Controlling money costs of feeding the family fundamentally ties-in with and becomes a part of the family's approach to the method of using total income, since for a large proportion of families the largest allotment for any one class of purchased goods is for food. Controlling food costs becomes one of the first items to be planned for when controlling the total pattern of family expenditure.

Food planning, home production of food, buying habits, and food storage are all factors in controlling food costs and therefore factors in the solution of one or more of the ten managerial problems in feeding the family. Adaptation of these methods of

control to a particular family will need to be made in order to effect a complete solution of the food-management problem for that family.

Planning Food for the Family. Custom, trial and error, and rational choice are the three methods of deciding what to feed the family. Custom involves rather a blind following of the food pattern of experience in the environment in which one was reared. Custom is usually not the total determining factor of choice, since change brings new and different experiences that act to temper custom's influence. Nevertheless, the basic pattern is custom, and the new experiences merely make variations that center around the traditional way.

Trial and error as a method of food choice means trying a food or a recipe to satisfy a food idiosyncrasy, to determine a like or avoid a dislike. Or again it may represent a method of habitually following current advertising campaigns of established industries through their programs in magazines, daily papers, or the radio. This method constitutes a haphazard approach to feeding the family, an uncharted course of action with little deliberation and judgment guiding choice, and few or no clearly defined goals to work for. As a method of choice of food for a family, it promises little toward ensuring a high degree of physical or psychological development of family members and certainly offers little hope for bringing money costs under control.

Planning food for a family through rational choice means planning based upon knowledge of nutrition and of costs of foods in various types of markets. Such knowledge of price and quality difference can serve as a basis of market choice. As a measure to be used in food management, rational planning is the method of the three which has the greatest potential power to control food costs.

Rational planning includes not only the plans for the food to be used day by day, but also the more intermittent choices of equipment, utensils, and linens which are used to prepare and serve food. It further extends to the choice and control of the fuel supply for food preparation. Thus reason and judgment,

together with knowledge, stand as the homemaker's most reliable method of choice of food to assure control of food costs and a well-nourished family group.

Home Production of Food as a Control of Money Costs. One of the common methods of reducing and thus controlling the cash outlay for food for the family is through home production of food. Note that we say cash outlay instead of money costs because it is extremely difficult for the homemaker to establish with any degree of accuracy the cost of home-produced foods. It is difficult because giving money value to the items which make up the cost of the home-produced foods is almost impossible for the lay homemaker. These items represent such costs as the value of the time of the labor put into the product, the value of ingredients and fuel, and, more remotely, overhead costs such as the kitchen space in which the food is prepared and the part of original and depreciation cost of the equipment and utensils used in preparation. If, however, we say cash outlay, the homemaker can rather easily decide whether the pie she makes or the cake she bakes means more or less spent in terms of cash. This form of money cost calculation may influence the family's decision on whether to produce foods in the home or to purchase a substitute in the market.

Reid says, "Comparatively few families have money incomes so large that saving money is not considered. If the money saving is important and no value is placed on time, household production is apt to be carried on so long as direct money cost of household production is less than the cost of a satisfactory market substitute. When the saving in dollars and cents is small, the difference in money cost is apt to be overlooked even though the percentage saving may be relatively large."⁶

Cash saving is not the only consideration when deciding between home-produced and commercial foods. Taste, flavor, and family likes play a large part in choosing the method to use to satisfy the group. Although not money-cost items, these factors may be a stronger influence in the final choice than the difference in cash saving.

⁶ Margaret G. Reid, *Economics of Household Production*, New York: John Wiley and Sons, Inc., 1934, p. 132.

The size of the family has some effect upon the amount of food produced at home. If the family is small, the cost per unit per person for commercially prepared foods may not be too great an outlay, but as the numbers increase the cash cost of these foods mounts and home production is the usual solution in reducing costs. Home production of food assumes abilities of the homemaker in this area and attitudes which permit a fair judgment in making a choice between purchasing commercially prepared foods and producing foods at home.

Buying Habits of People, a Factor in the Control of Food Costs. The buying practices of the homemaker, because she is food-purchasing agent for the family, have a striking effect upon food costs. The amount and quality of goods purchased with the dollars spent depends in large measure upon her knowledge, the efficiency of her choice of market, and her ability to select food wisely within the market she has chosen. Reid says, "In her buying the housewife must decide upon: (1) where to buy; (2) when to buy; (3) what quantity to buy; (4) whether to buy bulk or packaged goods; (5) how to pay for the goods; and (6) how to recognize the qualities desired and judge whether she is getting the most for her money."⁷ This is a formidable list of requirements when one realizes that added to these is the wide spread of other responsibilities of homemaking.

Buying food is the most repetitive type of purchasing the homemaker is called upon to make and in the lower-income groups constitutes the largest single family expenditure per year. Because of this fact, together with the "must-do's" listed by Reid above, it seems evident that the habits of buying which homemakers consciously or unconsciously build up greatly affect the money costs of feeding the family.

The homemaker who wishes to control her food costs will want to analyze her buying habits to see whether she (1) is buying to get the best dollar values, (2) is buying at the best time considering all factors at home and in the market, (3) is buying in the optimal quantity, (4) is using an economical method of payment for her food purchases, (5) is getting the quality she should for the dollars spent, and finally (6) is choosing sensible

⁷ *Ibid.*, p. 273.

quality for each use, and is not using the highest grades for all purposes, which may be extremely wasteful.

Storage Facilities and Habits of Storage as a Money-Cost Control. Frequently anticipated savings through well-planned low-cost meals or through careful buying in the home may be lost, or at least perceptibly reduced, by poor provision for storage space and by poor habits of storage. The amount of available storage space may be due primarily to the physical inadequacy of housing, while the quality of storage practices is the result of the homemaker's own habits and standards. Adequacy of food storage provided by the house when selecting shelter for the family and when choosing equipment for the home have been covered in Chapters XX and XXI as a part of the discussion of "Selection of Housing for Family Needs" and "Planning and Choosing Equipment for the Home."

Provision of food storage through adequate cupboard space in or near the kitchen directly affects the money cost of feeding the family through the effect upon the amount of *food spoilage* and *waste*, and upon the *quantity* of food supplies the homemaker is able to buy. For example, if storage space for perishable foods, such as citrus fruits or root vegetables, is inadequate, heavy loss due to spoilage may result. If cupboard space for semiperishables such as flour and sugar is meager, small-quantity or package buying may be an enforced method of purchase. Either of the two conditions is likely to result in an increase in money costs of food.

Refrigeration in the modern home may affect money costs of food in two ways. First, it may reduce cost by decreasing spoilage and waste and by allowing quantity buying of perishables; and second, refrigeration may affect food cost indirectly and less obviously as a result of inadequacy in the amount of space for family needs. If the refrigerator, ice or mechanical, is too small for family demands, it will be overloaded, efficiency in operation will be reduced, and the cost of operation will increase. The result will be an increase in cost of feeding the family.

Habits and standards of food storage affect money costs of feeding a family by the effect on the deterioration of food. Aside from the psychological ill effect and loss of flavor resulting from

food stored in uncovered pans and paper bags in which the food was delivered from the store, experiments in household equipment laboratories⁸ show that deterioration takes place rapidly where foods are poorly stored. Loss of moisture through leaving foods uncovered, spoilage due to the loss of water, loss of flavor, and absorption of odors and flavors of strong-flavored foods and from foreign matter in the box result in increased money costs. It would be difficult to estimate with any degree of accuracy the true loss due to such deterioration, because the food is often used even though there has been marked change in its quality. Also supplementary foods may need to be purchased to compensate for certain losses in order to satisfy family food likes. It is apparent, however, that in many families considerable waste arises from poor habits of storing food and results in increased money costs.

⁸ Virginia E. Berry, "Performance of Ice Refrigerators. I. Certain Factors Influencing Storage of Food," unpublished thesis, Iowa State College, 1939.

CHAPTER XXIII

SOME MANAGERIAL ASPECTS OF CLOTHING THE FAMILY

Clothing management consists of providing clothes for the members of the family to satisfy the physical, social, and psychological well-being of each, with a reasonable expenditure of both human and material resources of the family.

When the family is started, the problems that first press forward for solution in clothing management are quite different from those in feeding the family. The early clothing problems may not be those of choice or how to satisfy needs, but are likely to be those of care and upkeep. These fall into the realm of both physical activity and management.

Choice of clothing may be delayed for a long or short time, depending upon the stock of goods on hand at marriage. Custom dictates that the stock shall be rather adequate. When the stock of clothes becomes depleted, however, or when new members are added to the family, clothing-management situations are ever present.

CLOTHING-MANAGEMENT PROBLEMS

In the analysis of the responsibility of clothing the family, the managerial problems deal with such parts of family living as developing, particularly in the minds of children, attitudes regarding standards for clothing, suitability, quality of fabric, adequacy without waste; analyzing family clothing needs; making plans for the best method to meet these needs; choosing the market; selecting or buying the goods in the market; planning for storage of clothing and teaching children acceptable standards of clothing storage; planning for and providing space for clothing construction where this is done at home; planning for the care and upkeep of clothing; and choosing and taking care of equipment used in connection with care and construction of

clothing. These problems range in character from highly personal planning ones to the more technical phases of clothing.

INFLUENCE OF FAMILY RESOURCES ON SOLVING MANAGEMENT PROBLEMS OF CLOTHING THE FAMILY

The analysis chart which follows shows the family resources used in solving the managerial problems in clothing the family. On the left the major problems have been listed, and on the right directly opposite each problem is given the resources that influence the solution of the problem.

FAMILY RESOURCES AFFECTING THE SOLUTION OF MAJOR MANAGEMENT PROBLEMS IN CLOTHING THE FAMILY

<i>Major Clothing-Management Problems</i>	<i>Family Resources</i>
Developing family attitudes toward clothing	1. Social heritage 2. Attitudes 3. Knowledge 4. Abilities 5. Time 6. Money 7. Human energy
Analysis of individual clothing needs	1. Social heritage 2. Attitudes 3. Knowledge 4. Capacities 5. Abilities 6. Time 7. Human energy
Planning method of meeting needs	1. Social heritage 2. Attitudes 3. Knowledge 4. Capacities 5. Abilities 6. Time 7. Money 8. Human energy 9. Mechanical energy
Choice of the market	1. Attitudes 2. Knowledge 3. Abilities 4. Time 5. Money 6. Human energy

Buying-selection in the market

1. Attitudes
2. Knowledge
3. Abilities
4. Time
5. Money
6. Human energy

Training children in choice-making

1. Social heritage
2. Attitudes
3. Knowledge
4. Capacities
5. Abilities
6. Time
7. Money
8. Human energy

Planning for storage of clothing

1. Social heritage
2. Attitudes
3. Knowledge
4. Abilities
5. Time
6. Money
7. Human energy

Planning for space for construction

1. Attitudes
2. Knowledge
3. Time
4. Money
5. Human energy

Planning for care of clothing

1. Attitudes
2. Knowledge
3. Time
4. Money
5. Human energy
6. Mechanical energy

Choice and care of equipment

1. Attitudes
2. Knowledge
3. Abilities
4. Time
5. Money
6. Human energy
7. Mechanical energy

Knowledge, attitudes, and human energy are the human resources that influence the solution of all the problems. *Money* influences the solution of nine, and *time* influences the solution of all of the problems.

The one problem that demands the greatest spread of resources in its solution is number three, *planning for the method*

of meeting clothing needs. The solution of this problem is influenced by nine of the ten resources. They are *capacities* and *abilities* of family members in terms of aptitudes and skills in clothing construction; *attitudes* of each member of the family; *knowledge* in terms of textile fabrics, quality and specifications in buying in relation to price, market conditions, style and art in dress, construction—either for actual garment-making or for judging quality of construction in ready-made garments; *social heritage* in terms of traditional behavior relating to clothing or expectation because of status in the social group; *time*; both *human* and *mechanical energy*; and the amount of *money* available to spend on clothing.

Families do not have resources in equal amounts since the supply of some resources for any given family is usually limited. The clothing-management problems for any family will need to be solved according to the availability of important resources for the specific problem. An illustration of this is the family with limited money. Knowledge and abilities can be called upon to take the place of money in clothing the family. The use of abilities of people in clothing selection and in construction, however, requires the expenditure of time and energy. If money is restricted for supplying the family with clothing, it will probably be restricted for all needs. The drain and demand on time and energy in connection with supplying all goods that are usually purchased is likely to be heavy. As money is restricted, real income through services will have to increase if given standards are to be maintained. A balancing of values in the use of all of the three resources—money, time, and energy—is necessary before a wise solution to a problem can be evolved. If, on the other hand, money is restricted and time and energy are abundant, the conscious development of abilities may prove to be the wise way of meeting the clothing problem.

If money is not limited but knowledge in the area of clothing is, the solution to the problem may be to pay someone who has knowledge to carry the responsibility—a dressmaker, a modiste, or a well-qualified buyer or salesperson. Usually, the utilization of such services requires some knowledge of clothing on the part

of the homemaker or some member of the family, or costs will be excessively high. For most families, employing such substitute service would not be possible because money is a restricted resource.

The homemaker and her family that would solve the clothing problems adequately will need to survey family resources available, to see what resources other than money affect the solving of clothing problems, and to develop a more adequate supply of those resources within the members of the family in order to spare money for other purposes. This process will be recognized as the alternative use of resources which all families are called upon to make if certain resources are restricted, if given standards are to be maintained, or if they are to be improved.

HUMAN RELATIONSHIPS AND CLOTHING MANAGEMENT

Clothing the family is a group problem with an individual approach and thus gives rise to management problems that influence human relationships in the home. By contrast, feeding the family is largely an individual problem with a group approach, since in solving food-management problems the effect on the growth of the person is of first importance and the psychological effects are secondary. After certain fundamental principles of sanitation, physical fit of the garment, and protection are assured, clothing management is primarily a psychological problem because the choice of clothing markedly affects the development and happiness of people. An individual can eat his meal in the privacy of his own home behind closed doors. No outsider need know what he has eaten, how much, or under what conditions he has eaten. Not so in clothing, for as soon as the person steps outside his door he is in immediate contact with his fellow men, receiving their appraisal. The impact of the social group is extremely important in personality development, for it conditions behavior. The clothing one wears plays an important part in the adjustment to the social group.^{1, 2}

¹ Alpha Latzke and Beth Quinlan, *Clothing*, Chicago: J. B. Lippincott Company, 1935, p. 289.

² Wilhelmia Jacobsen, "Basic Factors of Aesthetic Value in Costume Design," *Psychological Monographs*, Vol. 45, No. 18, 1931.

CLOTHING—AN INDIVIDUAL PROBLEM

Developing family attitudes toward clothing and analyzing individual clothing needs are two inseparable problems. Clothing needs of family members differ because of individual differences. People are not alike in looks, physique, or temperament, and they are equally different in clothing needs. We have no norms, or standards, for choice of clothing comparable to nutritive needs for food. Thus individual differences play a greater role in clothing management than most items of choice in family planning. This is not to say that style and fashion do not enter into choice in large measure, since the individual does not care to be too different from the group. Style, however, influences clothing management in the need for adaptation of current style to individual differences within a given money allowance.

The two problems, developing attitudes about clothing and analyzing individual needs, are inseparable. The way the solution of either is reflected upon the development of the individual is well illustrated by the following example.

Tizzy was a flaxen-haired, blue-eyed, "Gretchen"-type child slightly oversized, with a mother who had impeccable taste in dress. The income of this family was greatly reduced. Tizzy was charming in rather tailored sailor dresses or sweaters and skirts, with hair in braids around her head. In this costuming she fulfilled her mother's idea of appropriate dress for a child of 13 or 14 years in junior high school. Because no one in Tizzy's class at "junior high" wore hair in this style, difficulties arose. She wanted a long bob with curled ends. If this had happened to Tizzy, she would have been just like any and every junior-high-school girl. To the onlooker, the mother's standard of dress showed taste and good judgment, but to the onlooker the child reflected the stand the mother took. She became weepy, self-pitying, irritable, and at times unpleasant with her family and friends. The mother was faced with the situation of helping Tizzy to realize that in the long run she would want to be individual, and further the mother wanted her to be analytical about her costuming. The immediate effect was to make Tizzy

defensive, and with this attitude she lost much of her charm. The mother, realizing this, decided to let the child take more responsibility for her clothing and to choose and to make some of her own clothes, instead of purchasing all of them ready-made. By having her attention focused upon analyzing her needs it was not long before Tizzy began to enjoy quite suitable clothing and in so doing she liked her braids. Her attractive response to people returned, and Tizzy was herself again. If this mother had not realized the effect of the solving of the two associated problems on the child's development, the results might have been disastrous for Tizzy and unpleasant for the family.

INDIVIDUAL DIFFERENCE IN CLOTHING MANAGEMENT

What are some of the individual differences which affect choice of clothing for family members and thereby bring about management problems?

Physique is an important individual difference. This should be understood by homemakers since it creates definite and important needs in clothing family members. Physique takes a large place in the role one plays in a group, is important in personality development of individuals, and together with personality is largely responsible for type differences of individuals. In fact, the theory of "yang" and "yin"³ in costume designing is based upon type differences, as for example differences in temperament, tempo, facial expression, posture, forcefulness, or fragileness.

The study made by the Bureau of Home Economics on measurement of children⁴ which shows that a great many children of like age have entirely different body proportions and dimensions should indicate to parents that irregularities are to be expected, understood, and planned for rather than regretted. Personality and relationship problems often arise from a parent's obvious regret of size or type of child.

Parents cannot overlook the importance of their responsibility

³ Bell Nothrop, *Art Education Today*, Teachers College Publication, Columbia University, New York City, 1936.

⁴ Ruth O'Brien and Meyer A. Girshick, "Children's Body Measurements for Size Garments and Patterns," United States Dept. of Agriculture, Bureau of Home Economics, *Misc. Publication* 365, 1939.

to study and to understand the feelings of their children who are off the norm in physique. Such knowledge will aid the parent in helping the child to understand himself and will help develop attitudes about the irregularity in relation to dress that do not interfere with personality development. Fortunate is the child whose parents understand causes of irregularities, take them for granted, calmly attend to medical aid for the condition, and through wise choice of clothing help the child to feel no different from others.

Understanding the individual in his various phases of development, planning suitable clothing, and helping the individual understand and plan for his or her own clothing needs, constitute an important part in satisfactory solution of clothing-management problems.

TRAINING CHILDREN IN CLOTHING SELECTION

Another major clothing-management problem which affects human relationship and development is training children to choose their own clothing: to determine personal needs, and to understand their needs in relation to other family needs. In addition, children should be encouraged and trained to choose their clothing by making actual choice in the market.

GUIDES IN TRAINING FOR CLOTHING SELECTION

Start clothing selection early.

For special occasions allow the child the privilege of choosing among the several garments he already owns.

Allow the child next to make the choice in his or her own environment (home) between two new equally acceptable garments, such as dresses or suits.

Still in his own environment (home) allow a choice between two unlike articles either of which is acceptable, such as a hat or shoes.

Take the child to the store to help choose between one of two like garments. The responsibility is still on the parent's shoulders.

Take the child to the store and allow the child to assume the responsibility of choosing one of two like garments.

Take the child to the store and allow him to help choose between two unlike items.

Allow the child to participate in planning the family clothing needs for the year.

Allow the child to set up his or her own clothing needs and select independently within the family's clothing budget.

Allow independent action with parent as consultant only, and the payment for the clothing from the child's independent allowance.

GROUP PROBLEMS IN CLOTHING THE FAMILY

Although clothing management is primarily a problem with an individual approach, it cannot be separated from group consideration since the purchase of clothing is made from the family treasury or income.

The philosophy of family living and the quality of group relationship are revealed quickly as the members of the group make their clothing demands. If the family has developed a habit of sharing in the use of income, in activities, and in receiving pleasure from interests of other members, the group considerations in clothing the family are an integral part of family living. If this is not the spirit of the group, then the decisions incident to determining needs, to choosing the market or goods, and to training young people to act independently in clothing themselves are likely to create maladjustments and group dissatisfaction. Essentially the quality of relationships in family living influences the solving of clothing-management problems so markedly that selfishness or unfairness does or does not exist depending upon this quality.

Some of the group considerations and conditions which are important in solving family clothing-management problems are:

Individual and group understanding that shared income is used to fulfill individual clothing desires.

Group understanding of individual desires and needs such that felt occupational or activity needs are cared for.

Group discussion and decisions on major purchases for a given period—season or year—make possible the alternate purchases of major articles from season to season, or year to year, such as coats or suits.

As the individual members grow old enough to take part in family finance planning, the decisions about the allocation of income to be spent on clothing as a part of planning for the use of income for all family needs should be made by the group.

Development of group attitudes about controlling money cost of clothing through quality of buying or quality of personal care is essential.

Development of attitudes about satisfactions that can come through creativeness in connection with clothing aids in solving clothing-management problems.

Development of managerial abilities in young people in making plans for clothing and in carrying out the plans adds satisfaction to all members.

Attitudes need to be developed about using shared equipment in the care and construction of clothing.

Personal standards in sharing in group storage of clothing must be developed. This is particularly important when space is inadequate and closets are shared by family members.

EFFECT OF INCOME ON CLOTHING EXPENDITURES

The consumer purchases study of 1935-1936 gives the percentage allocation of expenditures of American families by income groupings of under \$500 to \$20,000. (See Figure 20 and Table XXIX.) The average expenditures of American consumers, including both families and individuals, classified by income groups according to thirds of the population, are shown.

The lower third of the population in the study with incomes under \$780 spent on an average \$47, or 8.5 per cent of their total expenditures, for clothing; the middle third represented by incomes of \$780 to \$1,450 spent \$102, or 9.6 per cent, on clothing; the upper third with incomes of \$1,450 and over (the range is \$1,450 to \$15,000 and over) had an average income of \$2,212 and spent on an average of \$251, or 11.3 per cent, for clothing. The range of clothing expenditure on the average for this upper group was \$156 to \$1,775, or 10.2 to 14.1 per cent.

Clothing in the main ranks fourth in the categories of expenditures at most income levels. At the upper levels it equals or exceeds the expenditure in household operation, which for

most groups ranks third. Both the actual amount spent for clothing and the percentage of the total expenditure going to clothing mounts as incomes increase. On a percentage basis, the \$20,000 income group spent 15 per cent of the total expenditure for clothing while the other extreme under \$500 used 7.5 per cent.

These figures give a picture of average expenditures for clothing by American consumers. Individuals and professional groups may vary widely from this average pattern.

CLOTHING EXPENDITURES OF PROFESSIONAL WOMEN

The clothing expenditures of 209 professional women⁶ are reported in Tables XLII and XLIII. The range of income for the group was under \$1,500 to \$5,000 and over. The range of clothing expenditure was \$43 to \$710. The woman who spent \$43 was not in the lower income class but the one who spent \$710 was from the highest income class.⁶

Table XLII shows the total clothing expenditures and the number of women having specified clothing expenditures, by income classes. Table XLIII shows the number of professional women having expenditures for groups of items, with the amount spent and the percentage distribution of total clothing expenditures. Figures in this table are by clothing-expenditure class rather than by income class.

Observation of the tables shows that income has its effect upon clothing expenditures, even though individual cases will seem to have little relation, such as the person spending \$43. None of the women who spent less than \$100 during the year on their clothing had incomes above \$2,500; and the three women who had incomes of \$5,000 and over each spent \$350 or more. In the income class \$1,500 to \$1,749, only one woman in five spent as much as \$250 on her clothing during the year, whereas one in two in class \$2,750 to \$2,999 spent \$250 on her clothing.⁷

Even though income was an important influence in clothing

⁶ *How Professional Women Spend Their Money*, 1939, pp. 17-31.

⁶ *Ibid.*, p. 17.

⁷ *Ibid.*, p. 17.

TABLE XLII
CLOTHING EXPENDITURES

Number of professional women having expenditures for specified groups of items of apparel and average amounts spent, and percentage distribution of total clothing expenditures, by clothing-expenditure class, 1939*

	Clothing-Expenditure Class								
	All	Under \$100	\$100-\$149	\$150-\$199	\$200-\$249	\$250-\$299	\$300-\$349	\$350 or over	
Total number of women.....	209	22	44	33	37	29	20	20	24
Number having expenditures for:									
Dresses, suits †.....	209	22	44	33	37	29	20	20	24
Underwear, hose ‡.....	209	22	44	33	37	29	20	20	24
Footwear.....	208	22	44	34	37	29	20	20	24
Coats, other wraps.....	148	9	24	23	31	23	18	20	
Accessories §.....	204	20	44	33	36	29	18	24	
Headwear.....	206	20	44	33	37	28	20	24	
Sportswear.....	94	4	22	9	18	17	13	11	
Miscellaneous clothing items ¶.....	199	19	42	30	35	29	20	24	
Average || expenditures for:									
All clothing.....	\$224	\$80	\$128	\$174	\$227	\$270	\$324	\$457	
Dresses, suits †.....	72	26	38	58	71	86	95	159	
Underwear, hose ‡.....	34	17	24	30	39	38	46	55	
Footwear.....	28	12	21	26	28	32	40	43	
Coats, other wraps.....	28	3	8	18	26	36	51	74	
Accessories §.....	14	5	7	10	14	19	19	34	
Headwear.....	13	5	8	10	14	15	17	26	
Sportswear.....	3	**	2	1	3	4	6	5	
Miscellaneous clothing items ¶.....	32	12	20	21	32	40	50	61	
Percentage of expenditures for:									
All clothing.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Dresses, suits †.....	32.2	32.5	29.7	33.4	31.2	31.8	29.4	34.8	
Underwear, hose ‡.....	15.2	21.3	18.8	17.3	17.2	14.1	14.2	12.0	
Footwear.....	12.5	15.0	16.4	14.9	12.3	11.9	12.3	9.4	
Coats, other wraps.....	12.5	3.8	6.2	10.2	11.5	13.3	15.7	16.2	
Accessories §.....	6.2	6.2	5.5	5.7	6.2	7.0	5.9	7.4	
Headwear.....	5.8	6.2	0.2	5.7	6.2	5.6	5.2	5.7	
Sportswear.....	1.3	††	1.6	.6	1.3	1.5	1.0	1.1	
Miscellaneous clothing items ¶.....	14.3	15.0	15.6	12.1	14.1	14.8	15.4	13.4	

* Day Monroe, Maryland Y. Pennell, and Ruth Rosenwald, *How Professional Women Spend Their Money*, Bureau of Home Economics, United States Department of Agriculture, 1940, p. 22.

† Includes blouses and skirts.

‡ Includes slips, corsets, girdles, brassieres, shirts, panties, gowns, pajamas, robes.

§ Includes gloves, handkerchiefs, purses, jewelry, and other accessories.

¶ Includes materials, paid help for sewing, cleaning, pressing, and other miscellaneous clothing items. Also included are unclassified clothing expenditures incurred by 15 women, at an average expenditure (based on 209 women) of \$0.50 or less.

|| Averages are based on the total number of women in each clothing-expenditure class, regardless of whether they had expenditures for the specified groups of items.

** \$0.50 or less.

†† Percentage not computed for average of \$0.50 or less.

TABLE XLIII
TOTAL CLOTHING EXPENDITURES BY INCOME

Number of women having specified clothing expenditures, by income, 1939*

	Total Number of Women	Number of Women Having Expenditures for Clothing of						
		Under \$100	\$100-\$149	\$150-\$199	\$200-\$249	\$250-\$299	\$300-\$349	\$350 or over
All incomes....	207†	22	44	33	36	29	19	24
Under 1,500	34	5	8	9	6	3	3	—
1,500-1,749	49	9	12	14	4	6	3	1
1,750-1,999	34	5	10	5	4	7	2	1
2,000-2,249	28	2	6	2	5	5	4	4
2,250-2,499	20	1	2	1	8	6	1	1
2,500-2,749	20	—	4	2	4	1	2	7
2,750-2,999	10	—	1	—	4	1	1	3
3,000-4,999	9	—	1	—	1	—	3	4
5,000 or over	3	—	—	—	—	—	—	3

* Day Monroe, Maryland Y. Pennell, and Ruth Rosenwald, *How Professional Women Spend Their Money*, Bureau of Home Economics, United States Department of Agriculture, 1940, p. 18.

† Two of the 209 women, one each in the clothing-expenditure classes \$200-\$249 and \$300-\$349, did not report their net income.

expenditure it is only one factor. Taste, garments on hand, care of clothing, technical ability in clothing construction, climate, together with other pressures affect the amount spent on clothing.

CLOTHING BUDGETS BY OCCUPATIONS

The occupational and social demands of different socio-economic groups together with the amount of income available for family living cause wide differences in clothing budgets. The cost of annual replacement and upkeep of clothing for families in three socio-economic groups is found in the budgets in Table XLIV.

The cost figures in the table are summarized from detailed clothing budgets for the families of an executive, a clerk, and

TABLE XLIV

CLOTHING BUDGETS FOR FAMILIES OF AN EXECUTIVE, A CLERK, AND
A WAGE EARNER*

Stock and Annual Cost of Replacement and Upkeep

Type Family	Amount Allowed for All Expenses	Total Clothing Cost	Annual Replacement Cost	Annual Upkeep Cost
<i>An Executive</i>	\$6,453.40			
Husband.....		\$258.43	\$231.14	\$27.29
Wife.....		389.60	366.05	23.55
Boy, age 11.....		112.01	104.53	7.48
Girl, age 5.....		96.18	95.18	1.00
<i>A Clerk</i>	\$2,860.53			
Husband.....		\$101.82	\$ 93.09	\$ 8.73
Wife.....		129.75	125.23	4.52
Boy, age 11.....		68.33	64.16	4.17
Girl, age 5.....		44.00	44.00	—
Boy, age 2.....		36.29	36.29	—
<i>A Wage Earner</i>	\$2,184.25			
Husband.....		\$ 66.39	\$ 61.67	\$ 4.72
Wife.....		66.89	62.78	5.11
Boy, age 11.....		48.01	43.84	4.17
Girl, age 5.....		28.60	28.60	—
Boy, age 2.....		24.09	24.09	—

* Compiled from *Clothing Budgets, Supplement to Quantity and Cost Budgets for Four Income Levels*, Heller Committee for Research in Social Economics, University of California, Berkeley, California. Prices for San Francisco, March 1940 (excluding state sales tax).

a wage earner, priced for 1940.⁸ Comparison of the budgets shows wide differences in total costs of clothing from level to level and of cost for comparable ages and sex.

AGE AND SEX DIFFERENCES IN CLOTHING EXPENDITURES

Tables XLV, XLVI, and XLVII show average clothing expenditures for different members of the family for major clothing items classified according to expenditures of husbands, wives, and sex differences for six age groups. The data for these tables

⁸ *Clothing Budgets, Supplement to Quantity and Cost Budgets for Four Income Levels*: Heller Committee for Economic Research, University of California, Berkeley, California.

CLOTHING EXPENDITURES: AVERAGE CLOTHING EXPENDITURES OF PERSONS OTHER THAN HUSBAND AND WIFE IN SPECIFIED SEX AND AGE GROUPS, BY INCOME, 1935-1936.*
 Seven cities in Illinois, Iowa, Missouri, Ohio, and Wisconsin†
 (Persons from native white nonrelief families including both husband and wife)

Income Class	Males Other Than Husbands, Aged			Females Other Than Wives, Aged		
	16-29		30 and over		16-29	
	Number Having Expenditures‡	Average Expenditures§	Number Having Expenditures‡	Average Expenditures§	Number Having Expenditures‡	Average Expenditures§
\$0-\$499	6	\$17	3	\$10	5	\$23
500-999	72	24	18	17	79	27
1,000-1,499	139	35	21	23	129	44
1,500-1,999	103	46	7	37	110	62
2,000-2,999	112	65	18	44	106	89
3,000-4,999	60	79	12	58	78	108
5,000 and over	16	83	¶	¶	21	139
						4

* Bureau of Home Economics, United States Department of Agriculture, *Study of Consumer Purchases*, Preliminary release, Table 31-CL-2, February 14, 1938.

† The cities studied were: Lincoln, Illinois; Boone, Iowa; Columbia and Moberly, Missouri; Mount Vernon and New Philadelphia, Ohio; and Beaver Dam, Wisconsin.

‡ Only persons having and reporting clothing expenditures who were members of the economic family for 52 weeks are included in this column. Persons who had no expense for clothing, or who did not report either the total amount or the amount expended for one or more items, are excluded.

§ Averages are based on the number of persons shown in the preceding column.

¶ Fewer than three persons reported having clothing expenditures; averages not computed.

TABLE XLVI

CLOTHING EXPENDITURES: AVERAGE CLOTHING EXPENDITURES OF HUSBANDS AND WIVES FOR MAJOR GROUPS OF ITEMS, BY INCOME, 1935-1936.*

Seven cities in Illinois, Iowa, Missouri, Ohio, and Wisconsin †

(Persons from native white nonrelief families including both husband and wife)

Income Class	Number of Husbands Having Expenditures ‡	Average expenditures of husbands for §					Number of Wives Having Expenditures ‡	Average expenditures of wives for §					
		All Clothing	Hats, Caps	Coats, Other Wraps	Suits, Trousers, Shirts	Underwear, Hose		All Clothing	Hats, Berets	Coats, Other Wraps	Suits, Skirts, Blouses, Dresses	Underwear, Hose	Footwear Including Repairs
Positive incomes, all	3,045	\$ 52	\$ 3	\$ 7	\$22	\$ 5	\$ 7	\$ 56	\$3	\$12	\$17	\$10	\$ 8
\$0-\$499	76	16	1	7	2	4	1	76	1	5	4	4	6
500-999	605	23	1	3	10	3	5	610	24	2	6	5	2
1,000-1,499	869	38	2	4	16	5	7	868	40	2	8	11	7
1,500-1,999	614	54	3	7	22	6	9	615	56	4	11	15	9
2,000-2,999	553	73	4	10	31	7	11	557	79	5	17	24	11
3,000-4,999	263	99	5	16	44	9	13	263	107	6	29	33	12
5,000-and over	65	158	7	26	72	13	16	65	183	9	46	62	24
													25

* Bureau of Home Economics, United States Department of Agriculture, *Study of Consumer Purchases*, Preliminary release, Table 31—CL-1, February 14, 1938.

† The cities studied were Lincoln, Illinois; Boone, Iowa; Columbia and Moberly, Missouri; Mount Vernon and New Philadelphia, Ohio; and Beaver Dam, Wisconsin.

‡ Only persons having and reporting clothing expenditures who were members of the economic family for 52 weeks are included in this column. Persons who had no expense for clothing, or who did not report either the total amount or the amount expended for one or more items, are excluded.

§ Averages are based on the number of husbands and wives shown in this table.

TABLE XLVII
CLOTHING EXPENDITURES: AVERAGE CLOTHING EXPENDITURES OF CHILDREN IN SPECIFIED SEX AND AGE GROUPS, BY INCOME, 1935-1936*

Seven cities in Illinois, Iowa, Missouri, Ohio, Wisconsin†

(Persons from native white nonrelief families including both husband and wife)

Income Class	Other Male Children, Aged						Other Female Children, Aged							
	Under 2 Years			2-5			6-11			12-15				
	Number	Average	Having	Number	Average	Having	Number	Average	Having	Number	Average	Having		
	Having Expenditures \$	Expenditures \$	Expenditures \$	Having Expenditures \$	Expenditures \$	Expenditures \$	Having Expenditures \$	Expenditures \$	Expenditures \$	Having Expenditures \$	Expenditures \$	Expenditures \$		
\$0-\$499	4	\$6	4	\$6	9	\$10	5	\$17	4	\$20	8	\$11	4	\$22
500-999	65	7	74	10	116	12	67	16	85	10	112	14	73	17
1,000-1,499	95	10	124	13	201	20	124	23	105	13	173	19	132	27
1,500-1,999	58	10	75	17	115	24	91	31	76	20	136	25	91	40
2,000-2,999	31	16	46	21	103	30	92	42	44	25	91	31	71	44
3,000-4,999	15	16	17	25	52	35	39	56	17	28	32	36	47	58
5,000 and over	4	31	6	41	13	54	14	71	5	36	10	70	5	63

* Bureau of Home Economics, United States Department of Agriculture, *Study of Consumer Purchases*, Preliminary release, Table 31-CL-3, Feb. 14, 1938.

† The cities studied were: Lincoln, Ill.; Boone, Iowa; Columbia and Moberly, Mo.; Mount Vernon and New Philadelphia, Ohio; and Beaver Dam, Wis.

‡ Data are given for infants under one year of age regardless of the number of weeks in the economic family; data for infants 1-2 years of age are given only for those in the family for 52 weeks.

§ Averages are based on the number of persons shown in the preceding column.

¶ Only persons having and reporting clothing expenditures who were members of the economic family for 52 weeks are included in this column. Persons who have no expense for clothing, or who did not report either the total amount or the amount expended for one or more items, are excluded.

came from seven small cities in five north central states, Illinois, Iowa, Missouri, Ohio, and Wisconsin.⁹

Contrary to the general belief that women spend more money for clothing than men, these data reveal a tendency to equality for such expenditures between husbands and wives. The average expenditures of these 3,045 husbands and 3,054 wives show that on an average \$52 was spent by men and \$56 by women for all income groups represented. As incomes increased this equality followed until the \$5,000 and over income level was reached. At this level the women spent more than the men. The expenditure for men and women other than wives and husbands in the 30 and over age group show that men, on the average, in every income group spent more than the women in this age grouping.

Dropping down the age level to the clothing expenditures of the sons and daughters in the 16 to 29 year group, the average clothing expenditures of these young women were perceptibly larger than those of the young men of the same age. This relationship continued for all age groups and for each income level, that is, the average clothing expenditures for girls were more than for boys, although the differences in each case were small.

MANAGEMENT REQUIRED FOR SOLVING TECHNICAL PROBLEMS OF CLOTHING

Two technical problems of clothing the family require a considerable amount of management for satisfactory solution. These are technical knowledge of fabrics and standards of construction of clothing, and the care of clothing.

KNOWLEDGE OF FABRICS AND CONSTRUCTION

The clothing needs of the family and the resources available for filling the needs having been determined, the actual selection of the articles in the market is a problem demanding careful consideration and planning. At this point the consumer of clothing meets with difficulties. Contradictory statements in advertising baffle the purchaser, new materials are constantly coming

⁹ Bureau of Home Economics, United States Department of Agriculture, *Study of Consumer Purchases*, Preliminary release, Tables 31-CL-1, 31-CL-2, 31-CL-3, February 14, 1938.

into the market, and new finishes are given to old fabrics. These and many similar factors make identifying materials and determining quality difficult for the purchaser.

Whether the homemaker purchases or directs the purchase of clothing, the diversity of articles to be supplied the modern family is too great to allow one person to have a knowledge of all facts concerning quality of all materials.¹⁰ Yet, if value is to be received from the dollars spent on clothing, some knowledge of quality of fabrics and of construction of garments is required.

Two approaches to solving this problem are open to the consumer. One is to attempt to keep informed about new materials as they enter the market in order to know what materials are available for choice. For many homemakers this is prohibitive since there is not enough time to become well informed on all goods that must be purchased. The other is an individual interest and active participation in any movement that aims to help the consumer make more intelligent choices of clothing materials. This every homemaker can do. Such movements may be for better-informed and more interested salespeople, better and more informative labeling of fabrics and garments, or more authentic advertising. Not until individual consumers of clothing see the need for such help and actively demand it, will methods of merchandising include authentic information for the buyer.

MANAGEMENT IN THE CARE OF CLOTHING

Planning wisely for a personal wardrobe requires some knowledge of what is entailed in the care of clothing. For example, the knowledge of the cost of the care of a garment may condition the selection of the fabric, the color, or the construction of the garment. This cost may be a money cost or it may be in terms of time and energy. The relative supply of these three resources available for family living will frequently determine the final choice between two garments. The equipment required in the care of the garment and availability of commercial services may also condition its purchase.

The garment having been purchased, the length of its life

¹⁰ Latzke and Quinlan, *Clothing*, p. 319.

depends upon the way it is cared for. Care means the way it is used, the repair given the garment, and the cleaning and storage provided for it during use. The management involved in these technical phases of clothing are, first, the development of attitudes about care, next the development of habits of care that will conserve and extend the life of garments, and finally the securing of knowledge of how to care for clothing.

Adequate storage space for clothing has been discussed under planning for housing. (See pages 337-338.) The way the storage space is used, however, is a management consideration.

A well-organized clothes closet means that, if there is a place for everything, each article is more likely to be put in its place. This saves time for a busy person, improves the condition of the article, lengthens the service the garment gives, and thus reduces costs in both money and time and energy. Where a closet is shared by two or more members of the family, a considerable amount of planning is necessary to effect equitable use of the space and to provide satisfaction for all.

Another management responsibility in caring for clothing is planning for and providing adequate kind of storage for out-of-season garments, such as winter coats and other woolens stored during the summer, or summer clothing stored during the winter. Deciding upon the best time of the season for storing these materials or planning ahead in order to have on hand proper supplies for storage, such as materials for protecting woolens, paper, string, and boxes or cartons, are management phases of the care of clothing in family living.

CHAPTER XXIV

HOUSEHOLD-OPERATION EXPENDITURES AND THE FAMILY AUTOMOBILE

THE NATURE OF OPERATING EXPENSES

A large number of related demands upon family resources can be classified into one group of expenditures. These are the outgrowth of the problems of operating or running the household. Household-operation expenses differ from other categories of family expenditure in that a large number of separate items are represented, and the separate items are used by a number of different individuals in the household. Under circumstances of such diversity, the problems of management are complex and the method of solution may be far reaching in effect.

Electricity is an important cost in the operation of many homes. The far-reaching effects of the method of managing this item alone can be demonstrated by examining a certain family's approach to controlling its cost of electricity. Let us assume that the bill for electricity for the family is under scrutiny, either that it has been mounting consistently month by month or that it has increased markedly in one month. The first effort to reduce the bill, of course, would be to check the accuracy of meter readings. If no difficulty is found here, then the problem for the homemakers is to bring the amount of electricity used by the family under control. The solution to this problem develops into considerably more than a dollars and cents control through a mechanical turning off light buttons, or reducing the number of light bulbs per room. Controlling the amount spent for electricity may affect the development of human beings, for it may condition attitudes relating to cooperation, to personal responsibility to a group—the family group or to responsibility in using social properties—and to other subtle relationships among people.

We will assume that this family's electricity bill habitually is about \$3.50. Suddenly it increases to \$7.00. The problem for the group at the moment is to lower the cost of electricity. The question of *how* arises. Will the method used be based upon the realization of the human-relationship aspects of the situation with possible satisfactions for the family, or will the method be a nagging approach that will inevitably lead to irritation and dissatisfaction within the group? The solving of such a problem as this is more a decision of how to get people to react and how to motivate action through time, than the mere use of mechanical devices. The retort, "But, Mother, I forgot!" rings familiar to every homemaker who is working with young or old on problems of controlling certain costs in operating the household.

EFFECTS OF INCOME ON HOUSEHOLD-OPERATION COSTS

About 93 per cent of the population were shown to live on an income of \$3,000 and less in 1935-1936 in the data on page 253. The \$2,000 to \$3,000 group spent an average of \$212, or 10.4 per cent of the income, for household operation. The \$1,450 to \$2,000 income group averaged \$157, or 10.2 per cent of the income, for running the household. When the population was divided into thirds, the lower third represented by incomes of less than \$780 spent \$54, or 9.8 per cent, on operation; the middle third with a range of incomes from \$780 to \$1,450, spent on an average of \$108, or 10.2 per cent, and the upper third with average incomes of \$2,212, although the range was \$1,450 to \$15,000 and over, spent an average of \$240, or 10.9 per cent, on operating the household. These figures indicate that, in general, families tend to spend about 10 per cent of their incomes for running their household, regardless of amount of income, with a range of actual money cost averaging from \$108 to \$240.

The operating expenditures in these data cover a wide variety of goods and services and include such items as electricity, gas, coal, and other fuels for heating, lighting, and motor power. Also they include full- and part-time household help, ice, telephone, laundry service, miscellaneous household supplies, and other minor operating expenses. For farm families the value of home-produced ice and fuel is included in the minor group.

The small group of professional women reporting their expenditures for 1939 (Table XXXII, page 266) with average total expenses of \$1,705, spent an average of \$73, or 4.3 per cent of this amount, for operating their homes with a range of 3.5 per cent to 6.9 per cent as income increased from under \$2,000 to \$3,000 and over. Although this is a selected group among professional women, the amount of income influences household expenditures of these women both absolutely, that is, actual money spent, and relatively, percentage of the total. Families, on the other hand, although they spend more in absolute terms as incomes increase, spend about the same proportion on operating the household.

It must be remembered that these data are in terms of averages for the groups and that individual cases may vary widely from the average. Also that the data represent operating expenses for 1935-1936 and 1939. The future may easily call for a different pattern of costs.

Although families tend to spend about 10 per cent of their incomes for operating their households, the finance plans, or budgets, developed by the Heller Committee for occupational groups do not follow that pattern. (See Table XXXIII.) For the executive family the allowance for operation is 10 per cent of the income, but for the families of a clerk and a wage earner, the allowance is only about half that percentage, or 5.0 and 5.2 per cent of the incomes.

CONTROL OF HOUSEHOLD-OPERATION COSTS

Management of operating costs is the process of controlling the use of certain goods and services and also of guiding people in their use. Such guidance and control from day to day makes it possible to plan for both the use and cost of these goods and services.

In considering the problems of the control of operating costs, the analysis should first inquire into the types of costs represented. Such costs can be classified into two types from which a third can be derived, if control measures are brought to bear. These are (1) fixed costs, (2) variable costs, (3) and semifixed costs.

FIXED COSTS IN HOUSEHOLD OPERATION

A fixed cost in operating the household is a cost contracted for at a given rate. Since it is invariable, it can be planned for in advance. Fixed operating costs in the home include regular service contracted at a given time and wage either hourly, daily, or weekly; minimum public utility rates, when less than minimum quantities are used; telephone rates when telegrams and toll calls are not added; fire insurance; and personal care, when allocated at a given amount per person. The more operating costs a family is able to bring into the fixed-cost group, the simpler becomes the planning for household operation.

VARIABLE COSTS IN HOUSEHOLD OPERATION

All other money costs of operation will fall into the variable class until the third group, semifixed, is derived. Variable costs are those that are not contracted for at a regular rate and will change from month to month depending upon the use of the goods or services. In most homes these costs are represented by such items of expenditure as labor by the hour, not contracted for at a given rate or at a regular time; public utilities (electricity, gas, water); care and repair of household linens and furnishings; repair and upkeep of equipment; household supplies (soaps, cleansers, toilet paper, etc.); fuel; laundry services; personal care where not included in regular allocations per person; and other small or minor items such as postage and stationery. The items classified as minor depend upon the pattern of living of the individual or family.

How to control variable costs in household operation is the problem of most families. A practical way of effecting such control would be to bring as many of these expenditures as possible into a third and derived group of costs, somewhere between the two extremes of fixed and variable. This group we can call semifixed costs.

SEMFIXED COSTS IN HOUSEHOLD OPERATION

Operating costs that can be brought into a semifixed class are those that can be brought into a narrow range of variability through careful planning and careful use of operation goods

and services. Each family must set its own range of variability through a knowledge and an adjustment of individual costs from time to time. These costs then become predictable within a narrow range of error and can be planned for in advance.

For example, again take the family trying to reduce its bill for electricity to about \$3.50. Why not to \$2.50 or less? Through a period of time this family has kept its bill somewhere around \$3.50. The family considers the range of variability to be between \$3.00 and \$4.00. Concern naturally came when the bill steadily mounted to \$7.00.

Certain items of operating expenditures lend themselves to control through this method more than others. These are gas, water, and hourly service when a definite amount to be spent is set, as for instance \$1.00 per week with no more service hired beyond that amount.

Fuel is an item that can readily be brought into the semifixed group. Real estate dealers often sell a house with a heating reputation of "9-10 tons of coal" or "\$75-\$90 oil or gas" heating cost. Other items more difficult to bring under this type of control include household supplies, repairs on equipment, and even replacement of certain kinds of equipment.

TIME AND ENERGY ASPECTS OF HOUSEHOLD-OPERATION COSTS

When a family is working to control household-operation costs, the somewhat less obvious time and energy costs are frequently overlooked. Time and energy costs enter into the amount spent for a number of items of household operation, such as the amount and kind of fuel, amount and kind of help, type of laundry service, and often into the quality of household supplies.

The choice between two qualities of a particular good used in household operation may be influenced more by time and energy costs than by the money cost. For example, the family may choose to burn a good grade of coal instead of a poorer and cheaper grade because the time and energy costs in firing or in cleaning up after its use will be less for the good grade than for the poor. The decision may result in higher money costs but lower time and energy costs.

Time and energy costs of certain other choices made by the family may greatly influence the amount spent on operation of the household. An example is the choice of finish of the wood-work in the house. One type of woodwork may require considerably more work in its care than another. If the first type is chosen, unless some family member takes the responsibility for the added time and energy required, more help will need to be hired and an increase in the cost of operation will be the result. Or one type of finish might require a special quality of material in its care which would add to the cost of household supplies.

As incomes decrease, often families are forced to reduce money costs of household operation by increasing the expenditure of time and energy.

Control of the time and energy costs as a part of household-operation costs results from a conscious weighing of time and energy costs against money costs involved in choosing all goods and services needed for household operation.

MANAGERIAL ASPECTS OF THE FAMILY AUTOMOBILE

The complexity of modern life has brought no good into general use that has given rise to more difficult management problems for parents than the family automobile. Although the problems are many, in general they can be classified into three groups: (1) those which predominately affect human relationships, (2) those which relate to money costs, and (3) those which affect changes in time and energy pattern of family members.

HUMAN-RELATIONSHIP ASPECT OF THE FAMILY CAR

A not unfamiliar scene at the dinner table of any American family is the discussion of who will have the use of the family automobile in the evening. Father has a civic committee meeting until 9:00 o'clock; Mother has an adult class at the school; Jane, age 18, has an all-girl club meeting 8:00 to 11:00; and Eric, age 16, has a date. Who shall have the car?

The family automobile is a good shared by the group in family living, yet its use also satisfies insistent personal wants. The immediate satisfaction of these wants is intense for the

individual, particularly for the growing youth. This situation is not the same for other goods shared in common, as for instance the house, the yard, or the dining table. A family member may accept graciously joint use of the living room, may expect group use of the dining table, and yet be quite resentful at times in having to share the use of the automobile.

The conflicts that arise from the desire for personal use of the family-shared automobile can be resolved to the satisfaction of all only if certain well-understood principles of group behavior are observed in family living. These principles grow as a part of family attitudes and philosophy as the group develops together. Applied to the automobile they can be summarized as follows:

Group understanding comes through group decisions about the use of the car and group decisions in making plans for its use. The result is an understanding of why one person should have its use instead of another.

A fair distribution of the car's use will aid in satisfying all members. An example of this principle is the family in which sisters by arrangement use the car on week nights leaving it for the brother for Friday or Saturday nights.

A fair give and take in arranging for the use of the car for important occasions will be essential in resolving conflicts. An example of this principle is the brother who gave up all claims to the use of the car during the freshman sister's sorority rush week. Another example is the parent who uses the taxi or bus instead of claiming a part use of the car when, on important occasions, the children want the car.

Dovetailing the use of the car by several persons during one period of time is yet another method of resolving a complicated conflict. The dilemma of the family mentioned above can be cited as an example. Father and Mother can be taken to their meetings by Jane. Eric can take Jane to her club meeting at 8:00 and she can come home with one of the girls. Eric can pick up his girl, then call for Mother and Father and deliver them at home. Then he can have the car for the rest of the evening. In some homes this dovetailing process mounts almost to traffic-manager proportions.

Developing an attitude on the part of family members of receiving pleasure from pleasures of others is another principle of group behavior essential in resolving conflicts from the use of the family car. This is a natural state of mind of

parent for children, but not always found between brothers and sisters. It is an attitude that can be developed and is important when meeting situations brought about by the use of the family car.

MONEY COSTS OF THE AUTOMOBILE

The expenditure data for consumers in 1935-1936 in Chapter XVII show that cars were operated in all income groups from the lowest to the highest. The group receiving \$2,000 to \$3,000 spent on an average \$201, or 9.8 per cent of their incomes, for the automobile. The group receiving \$1,450 to \$2,000 spent an average of \$121, or 7.9 per cent. When the population is divided into thirds, the upper third spent \$215, or 9.7 per cent, while its range of costs was \$121, or 7.9 per cent, to \$1,460, or 11.6 per cent. It should be remembered that the range of incomes for this group was very wide, \$1,450 to \$15,000 and over. The middle third with incomes of \$780 to \$1,450 spent \$57, or 5.4 per cent, on the car, and the lower third of under \$780 spent on the average \$16, or 2.9 per cent, on the car. The automobile was found to be a part of the expenditures of families in the \$1,000 and under income group even though they spent more than they earned through going into debt, receiving some form of subsidy, or using savings (Figures 20 and 21, pages 260-262). However, the proportion of car owners was much smaller for the low-income groups than in the high-income group, which explains much of the variation in average automobile expenditure.¹

The data include the following usual automobile expenses: purchase of new and used cars during the year of study, gasoline, oil, accessories, rentals, fines, automobile insurance and taxes, and parking and garage fees. The expenses included only family use of the automobile since the proportion chargeable to business costs has been deducted.

Few families keep exact cost records of the automobile.² The

¹ *Consumer Expenditures in the United States*, National Resources Committee Report, 1939, p. 25.

² For ten years one of the authors has had enrolled on the average 250 college seniors per year in her home-management classes. The question of family automobile expenditure records has been put to each class. Answers indicate that

reasons given by car owners for lack of accurate records are numerous. Some say that it is too much bother; others, that they know the approximate cost, so why bother to keep record of expenses. Still others say that they do not keep records because, if they did, they would be unable to justify car ownership. Others frankly admit that, aside from a record of the current cash costs of operation, they do not know how to compute costs.

A large number of automobiles are purchased on credit. Each individual who buys on this basis should investigate his credit costs before he makes his purchase. Since it is not a small item in the total automobile cost, he will do well to shop around for the best buy in terms of credit of his car purchase, as he is likely to do for the best buy in make of car.

The following example of credit costs on a particular age car will serve to show how wide the range of credit costs can be in a given locality and for one establishment in a community. The data, procured from a local dealer in a town of 12,000 inhabitants, are the credit terms available for the purchase of a two-year-old car in the low-priced group of cars. In the first two cases the dealer financed the purchaser's loan through an acceptance company.³ Case 1 represents the terms of a local finance company, and case 2 those of a national financing company. The third case represents the terms offered by a local bank in the community through its automobile financing department. The coverage is comparable for all three cases, that is, insurance, legal rights of ownership, and other terms of contract.

The figures show a range of computed interest rates of 12 to 23.1 per cent. The best buy in terms of credit charge is obvious, and the possible saving to the purchaser would well repay the trouble of investigation. One caution should always be given

about 8 per cent of the group come from homes where fairly accurate records are kept. Since college seniors represent a selected group, it is safe to say that the average for the total group of car owners would be considerably less.

³ An acceptance company is the financial organization that purchases installment credit contracts from the local dealer and thus becomes the legal owner of the credit instrument. Each acceptance company lays down its own rules of business organization within the limits of the state law.

CREDIT TERMS OFFERED FOR USED CARS BY A LOCAL DEALER WITH COMPARABLE INSURANCE COVERAGE, AGE CAR, AND TIME OF CONTRACT

Unpaid balance, \$300, repaid in equal monthly installments.

Number of Months Credit Is Offered	Total Amount of Note	Computed Interest Rate per Month	Computed Interest Rate per Year
Case 1 (Advertises at 6 per cent interest)			
10	\$358.00	.93	23.1
12	364.00	.77	21.24
16	385.44	.76	21.12
Case 2			
10	\$351.00	.42	17.0
12	353.28	.48	17.7
15	371.25	.5	18.0
Case 3			
10	\$336.20	.2	14.4
12	339.15	.1	12.0
16	349.04	.1	12.0

in this connection, that is, to be sure the terms of contract *are really comparable*. Such assurance may require a small fee of a contract lawyer. The cost of the fee may well be offset by the saving to the purchaser.

EFFECT OF THE AUTOMOBILE ON FAMILY TIME AND WORK PATTERNS

The effect of the automobile upon the time and work patterns of family members can be readily observed. Although no studies have been made to measure the extent of the effect, observation will bear out the fact that not all evidences of the impact are favorable.

The automobile speeds up the whole tempo of a family's life. Time is saved at one or more points in the day's routine and this makes it possible to crowd in other activities, both for individuals and for the group. The result has been ever-widening interests competing for time and energy. Where there has been no car in the family, the new car changes the tempo so gradually that the family is frequently not aware of the change. Families that have always had a car are often unaware of the effects of the car upon the time and energy use of its members.

Some of the specific evidences of the change in time and work patterns in the family are reviewed below. The list will serve to show the effect of the speeding-up process upon different members in the family.

For the woman homemaker, the automobile has made possible a widening sphere of interests and an opportunity to take part in "extra-family" activities that she would not otherwise have had. This participation, if not exploitive, is beneficial both to the family and to herself. When broadened interests reach the point of scattered interests, the effect upon the family group may be less favorable.

The time and work pattern of the mother is the most flexible of that of any member of the family. She does not have as definite time for her work as that imposed by the hours of school for the children or occupational hours for her husband. As wife and mother she is called upon to adjust the home hours to fit hours imposed by the outside world. Because her schedule has this greater flexibility, she is frequently called upon to "take and bring" members to school, to work, to meetings, etc. The results of disturbing her time and work pattern may give rise to nerve strain and to tensions which frequently cause maladjustment in the group. The mother is not the only member of the family who may suffer from such an exploitive process.

While the family car saves time and energy, it can also lead to false or overrationalized economies. Careful check is needed to avert this situation. Probably the most common example is in buying when the purchaser is looking for a bargain or saving a few pennies. Shopping with the car saves time and energy, yet it can and does give rise to false economy, since time can be wasted in "shopping around," and the cost of gasoline may equal or exceed the saving in cents on the purchase. If the family will compute the added money costs and the time and energy consumed, they can readily appreciate the extent of the false economy.

One effect of the car upon the time of younger members of the family, not always realized, is the development of a habit of wasting time. The rather impelling force of the feeling of freedom and fun experienced in just playing around is responsible

for the habit. Pleasure in family living is always to be encouraged, but here is an instance where it may lead to habits that become destructive to the individual instead of constructive. When this happens, habits of wastefulness permeate all parts of the individual's life and greatly affect his accomplishment and welfare.

CHAPTER XXV

MANAGEMENT OF FAMILY HEALTH AND RECREATION

Health and recreation are two closely associated responsibilities in planning for family living. In turn both are related to many other responsibilities and activities in the conduct of family life.

In planning for the use of family resources to attain goals in family living, the pressure of immediate need or desire for a wide variety of goods is constantly in competition with equally immediate but often neglected conditions of health or need of release from tensions through recreation. The management problems of health and recreation for any family are: planning for prevention and cure of ill health, and planning for healthful conditions under which the family will live, work, and play together. This chapter will treat of the first group of health-management problems since details of the second group have been covered in connection with time and energy management and housing management.

HEALTH

Of first importance in managing family health is planning for and providing adequate nutrition and physical and medical care of members. The cooperative study on the nutrition of the college girl, which has been in progress in a number of colleges since 1937, has revealed that a high proportion of college girls have defects of tooth and bone structure, the cause of which can be traced to nutritional deficiencies in childhood.¹

The rejections of young men drafted under the Selective Service Act and those who have volunteered for service also reveal many physical defects. These rejections indicate widespread nutritional deficiencies. Among the list of defects found are poor

¹ Unpublished data, Nutritional Status of Iowa State College Women, Project 538, Iowa Agric. Expt. Sta.

teeth, bone defects such as spine weakness and flat feet, and over and under weight. Many of these defects would have been avoided had early diets been nutritionally adequate, had many symptoms of ill health received early preventive medical care, or had condition for physical care been adequately planned for. A well-nourished, well-cared-for body is of basic importance in all living.

In providing for both nutrition and physical care of family members, the resources *knowledge* and *attitude* will be of prime importance in meeting and solving health problems, because they are essential to solving the problems of prevention. The resource *money* will be important for medical care because physicians' fees and hospital bills must be paid. Knowledge of and attitude about nutrition, immunization, sanitation, disease control, home care of the sick, and preventive health habits will be necessary in preventing malnutrition, disease, and physical disability.

The individual is given his physiological start in the home, that is, the early molding of teeth, bone structure, and resistance. These are influenced by both prenatal and postnatal care. To plan for conditions which provide healthful environment, to plan and provide nutritious food, to increase knowledge of good health practices, wherever health is involved, and to train children during their growing years to observe and practice health habits are important features of prevention in management of health in home and family life.

FAMILY HEALTH EXPENDITURES

The information in the study of consumer expenditures reported in Chapter XVII, pages 260-262, shows a wide variation in both amount and percentages spent for health. Families with an income of less than \$500 spent \$22, or 7 per cent of their incomes, for medical care as compared with \$837, or 2 per cent, in the \$20,000 income group. When the population was divided into thirds according to incomes received, the lower third with incomes under \$780 spent on the average \$20, or 3.6 per cent of their incomes, for medical care; the middle third with incomes of \$780 to \$1,450 spent \$41, or 3.9 per cent; while the upper third with an average income of \$2,212 (the income range for

this group was \$1,450 to \$15,000 and over) spent on the average \$106, or 4.8 per cent, on medical care. The range of medical expenditure for this upper third was \$68, or 4.4 per cent, to \$724, or 5.8 per cent. Families whose income was between \$1,450 and \$2,000 spent \$68, or 4.4 per cent, on medical care, while those whose income ranged between \$2,000 and \$3,000 averaged \$94, or 4.6 per cent. These figures indicate that the percentage spent on medical care tends to decrease as income increases, and the amount spent tends to increase.

The major health expenditures included in these data are for services of physicians, oculists, dentists, and other specialists. Value of free medical service supplied by public or private agencies is not included. Other items of medical care represented here are supplies and appliances, eye glasses, and accident and health insurance.

Although these data show that families whose incomes were below \$1,200 spent very little on medical care many of these families were eligible for free or subsidized medical services, if they lived near such services.

The study of cost of medical care of people in the United States revealed that families on very low incomes and those on the high incomes are well cared for in respect to hospital care, health examinations, immunizations, but the low group does not have adequate dental or eye care, whereas the middle third and lower section of the upper third have the first three items less well provided for but have better dental care and attention to eyes than the lower-income group.²

In managing its resources, the moderate-income group of \$1,200-\$3,000 is the one that will need to increase its knowledge of nutrition and health care in order to reduce money costs of health through prevention.

PLANNING FOR FAMILY HEALTH

Good health of family members is the result of much thought and planning. Good health is something to be worked for and is an important goal in the life of each family.

²I. S. Falk, Margaret Klem, and Nathan Sinai, *The Incidence of Illness and the Receipt and Costs of Medical Care Among Representative Family Groups*, Chicago: The University of Chicago Press, 1933, pp. 108-111.

For the family or the individual the incidence of sickness is uncertain and unpredictable.³ Budgeting for unexpected illnesses that demand large expenditures of money may be impracticable; nevertheless, plans for the cost of certain preventive measures can be made. An important part of a family's health plan is keeping the members of the group generally physically fit by regular times for physical and dental examinations, and for immunization. Consultation with the family dentist and physician will give facts about frequency and extent of needed regular medical care and health check-up per member of the family. This information can be used as the basis for planning for cost of health in the family budget. For a growing infant whose physical growth and development are dependent upon its daily routine and food intake, the necessity of more frequent physician's care is apparent. The proper age to discontinue regular medical care is dependent upon circumstances and will need to be decided in consultation with the physician.

Regular payments are usually an accepted part of group or guild medical care or hospital service associations. Those families who are eligible and are members of this type of medical assistance will find planning for costs or health a greatly simplified problem.⁴

Important in managing health care of the family is planning for early attention to the mother in pregnancy. Early contact with the physician or the public-health nurse is essential to ensure proper maternal hygiene. Proper treatment for the prospective mother is a preventive measure of extreme importance to the family.

Another regular preventive measure in managing the health of the family is immunization, the cost of which can be planned for in advance of the service. Early attention to this control measure saves money cost, time and energy expenditure, and eliminates much anxiety. Disease control is not only a problem of family planning for its own health but also is a part of family planning for community well-being.

³ *Ibid.*, pp. 45-56 and 238.

⁴ Evans Clark, *How to Budget Health*, New York: Harper and Brothers, Publishers, 1939.

PARTICIPATION IN COMMUNITY HEALTH ACTIVITIES

One part of the program for good health often overlooked as a family problem is an understanding of and a participation in activities that foster good health in the community.⁵ This obligation includes attention to community responsibilities that affect group health such as sanitation, control of disease through immunization, cooperative efforts to curtail the spread of disease, and where practical participation in group or guild medical or hospital plans.

The civic health responsibility of families extends to participation in programs for improving health for less privileged groups in the community. The health of each person in the community is the concern of all in the community and adequate health care should be provided for all. Improvement in general health of the community raises the health level and in turn makes family health control a less costly item in the family budget.

One of the first requirements of intelligent participation in improving health conditions in the community is to learn about existing agencies and their activities that attempt to improve health. An example of such an agency might be the county public-health service and its program in the community. The city health ordinances such as milk inspection, sewage and garbage disposal, and quarantine regulations will condition community health. Any activity that affects family health should be the interest of every man and woman homemaker in a community.

A COMMUNITY HEALTH SURVEY

The family desiring to help improve community health conditions can make no greater contribution to the well-being of the group than to initiate and help carry out a thorough study of community health. Through such a study health conditions of the community can be learned, needs can be located, and a program of improvement can be developed, based upon facts as they point to specific needs.

⁵ Wood, Lindquist, and Studley, *Managing the Home*, pp. 286-293.

A check sheet for a community health survey which may lead to health improvement in the community has been developed by the Extension Service of the Iowa State College. (See Appendix, pages 456-459.) Such a survey would be useful in directing community attention to its own needs. The items of study covered in the check sheet are described as follows:

- A. *Health organization* in the community includes a careful check on the attitudes of families in the community toward and participation in general health facilities, such as health education programs, medical facilities and services, community respect for health regulations, etc.
- B. *Sanitation* covers the common items of both public and home conditions related to sanitation.
- C. *Food supply* includes conditions of milk production and distribution, fresh fruits and vegetable supply, and public food service.
- D. *Prenatal care* covers facilities for this type of care and education for expectant mothers.
- E. *Infant and pre-school child care* covers assistance to mothers in care of infants, pre-school physical examinations, and pre-school immunization.
- F. *School health* includes a school environmental check-up, medical inspection of school children, training of teachers for health education, and high-school courses in hygiene, first aid, and home nursing.
- G. *Health programs for organization* includes health units in active programs, such as 4-H clubs, Boy Scouts, Camp Fire Girls, and Red Cross.

A program of study of this kind could not be carried out by one family alone, but if done in cooperation the community would become aware of its specific and urgent health needs. Programs of improvement could then be more easily projected. As the community health conditions improve, the individual family will benefit.

FAMILY RECREATION

Recreation in family living is so much a part of the total pattern of living that it is difficult to segregate it as a management problem unto itself. Recreation is closely associated with family

health, since the amount and kind of recreation have an effect upon physical condition. It is related to housing the family because space must be planned for the family for play and hobbies. It is a part of the plans for social life of the family since individual or group recreation often is the nucleus of social activities. It is a consideration in planning the use of money since the amount of money available for recreation often conditions the type chosen. Also recreation is associated with time and energy planning, for, in order to have either personal or family recreational activities, an adjustment of the work time or a period of time must be planned for the activity.

The following list of considerations are of importance when planning a recreational program in family living:

Recreational activities should fit the aptitudes and interests of the family members.

Family living is enriched by group recreational participation.

Integrated recreational activities in family living build group characteristics, such as companionability and cooperativeness. An example of integrated activities is a buffet supper in the living room for adult members of the family and a kitchen party for young people in the kitchen.

Family participation in community recreational programs builds an interest in people and community conditions outside of the family circle.

Recreational activities planned for in family time and work schedules, and in the family finance plans, assures the group that a program of recreation can be realized.

Recreation that has elements of creativeness has educational value to members of the group.

RECREATION EXPENDITURES

Table XXIX, showing the average expenditures of American consumers, indicates an increased amount of income devoted to recreation as income rises from the lower levels through to the higher levels. The average dollar and percentage outlay for recreation ranged from \$9, or 1.7 per cent, for the \$780 and under level to \$781, or 6.2 per cent, for the \$15,000 and over level. The \$9 represents the expenditure for the lower third of the income

group, \$780 and under; for the middle third with incomes of \$780 to \$1,450, the average expenditure for recreation was \$28, or 2.7 per cent; and the upper third with an average income of \$2,212 spent \$89, or 4.0 per cent. The range for this group was \$49, or 3.2 per cent, to \$781, or 6.2 per cent.

The items covered in the recreation category in the data are paid admissions to movies, ballgames and other spectator sports, fairs, dances, amusement parks, equipment and supplies for recreational activities, fees and other costs of games and sports, radio purchases, musical instruments, entertaining (no food costs), dues to clubs (not professional), expenses for hobbies and collections. Expenses for vacation trips and sports clothing were not included.⁶

⁶ *Consumer Expenditures in the United States*, p. 26.

PART VI

MANAGEMENT LEARNING EXPERIENCES

CHAPTER XXVI

MANAGEMENT LEARNING EXPERIENCES FOR THE STUDENT OF HOMEMAKING

As we turn to a consideration of teaching procedures and the techniques through which some of the principles of good home management may be taught to students of different ages and under different circumstances, it is necessary not only that we have a clear understanding of what home management is but also that we understand what is embodied in the learning process. In former chapters the authors have tried to show what is involved in home management. Here we shall deal with the learning process.

Opinions differ upon such questions as what learning is, how a person learns, and what one should learn at various age levels. Spafford says, "Different periods have had different ideas as to acceptable school learning. The standards of the school and life outside have not always been the same. The present century has seen a growing tendency to evaluate the learning of the school in terms of the demands of life situations, thus bringing the two closer together. Satisfactory learning in school is coming to mean a changed point of view toward life, the building of attitudes, ideals, and appreciations, the setting of standards, the understanding of underlying principles, the perception of relationships, and the using in new situations, of whatever has been learned."¹

In discussing education from a pragmatic point of view in his book *How We Learn*, Bode says that learning is accomplished

¹ Ivol Spafford, *Fundamentals in Teaching Home Economics*, New York: John Wiley and Sons, 1935, p. 95.

through the reconstructing of experience, and that this conception of learning combines thinking, skill, information, and appreciation in a single unitary process.²

Under these conceptions, evidence of learning would be changed behavior, changed attitudes, or changed appreciations.

LEARNING MANAGEMENT

Management learning situations in homemaking are those experiences which allow the individual to plan, to direct or to guide, and to coordinate the use of whatever resources are available for solving living problems in order to achieve some end or purpose. This type of learning embodies the use of information to project a plan of action by setting up objectives of what is to be accomplished, making a plan to achieve the desired goals, experiencing the plan in action, then evaluating the result to test the worthwhileness of the experience.

If the individual is confronted with a situation that requires thinking and acting in using resources or goods in solving problems, then managerial abilities can be developed. For example, a student is confronted with the problem of feeding a group, family or otherwise, for a period of days. Certain resources are available for solving the problem. She actually plans the meals, plans the purchase of the food, buys the food, prepares and serves the food, clears the kitchen, and evaluates the experience. In this actual situation the student has had an opportunity to utilize and develop all the managerial abilities that enter into the solving of many homemaking problems.

For certain individuals with a background of practical experience, management can be learned vicariously through case studies of the way others have met management problems. Here learning is accomplished by reconstructing past practical experience into an orderly plan of action for future accomplishment, through discussion, reading about method, or reading about the way others solve their problems. Such a method of learning might be used by an experienced homemaker who wishes to improve her standards of management. This is well

² Boyd H. Bode, *How We Learn*, Boston: D. C. Heath and Company, 1940, pp. 232-253.

exemplified by a homemaker who wishes to improve the family's finance management. The family has had experience in using its income; the problem now is how to make better use of it. By analyzing the way others of similar background and social goals have used their incomes and comparing their methods with hers, the homemaker can develop more satisfactory methods for her family. Or again through a study of principles of good finance management the experienced person can learn management. Such learning, however, assumes a desire on the part of the learner to improve and a willingness to change behavior.

LEARNING MANAGEMENT IN THE HOME

The home affords the best possible environment for learning management. The parent will need to realize the importance of this type of experience for the child as development takes place. Pressures of many kinds cause parents to say, "It takes less time to do it myself." The statement reflects the lack of recognition of the important place management takes in living in a modern world.

MANAGEMENT LEARNED THROUGH FAMILY PARTICIPATION

Managerial abilities can be developed as a part of group living by allowing the young child to carry the responsibility for some part of the use of resources. This can be accomplished in two ways, either by the child's participating in family planning and the group's carrying out the plans, or by allowing the child to make the plans and the family's cooperating in putting them into effect. Evaluation of the plans can then be made by all.

The following are examples of family situations or activities that allow either approach.

Plans for recreation on holidays give excellent opportunity for group thinking and involve the use of time, human energy, money, knowledge, capacities, and abilities.

Certain cleaning responsibilities lend themselves to group planning, such as cleaning the basement or attic. These involve the use of time, human energy, knowledge, and mechanical energy.

Seasonal canning or pickling can be a group project planned by either the group or one person. The solution of these involves the use of time, human energy, money, knowledge, and mechanical energy.

Vacation plans can be made by a group or by an individual for the group.

Food for special occasions, such as Thanksgiving, Christmas, or birthdays, can be planned in this same manner.

MANAGEMENT LEARNED THROUGH INDEPENDENT ACTION

UNDER PARENTAL GUIDANCE

Certain managerial abilities can be developed as the child matures, if he is allowed to make plans for personal needs and accomplishments and yet carry out the plans under parental or family guidance. The following are suggested situations for this kind of learning:

The growing girl can be allowed to plan and provide a single garment for an important occasion, as for instance an evening dress.

The adolescent girl or boy who has previously helped plan family clothing needs will early want independent action. He or she can be given an allotment of money for all clothing, can plan for needs, can make all selections, yet at this stage the bills may be paid from the family funds. Thus the adolescent child will be given the experiences of planning and selecting yet will have the guidance of the parents. The amount allowed for clothing would be aside from an allowance for personal needs. Later the clothing allotment can become a part of the allowance covering all needs.

A similar plan of giving management experiences can be arranged for other personal wants, such as materials for a hobby, gifts for Christmas time, or purchase of books.

An older child who has had the above experience can become independent by being given the responsibility of handling the money after having planned his wardrobe and other needs, and being required to live within the allotment.

A "gang" party can be the situation for learning management since the success of the party is extremely important. Not only does this experience lend itself to careful plan-

ning but it also offers an opportunity for putting the plans into practice.

TEACHING MANAGEMENT ON THE SECONDARY-SCHOOL LEVEL

Teaching home management on the grade- or high-school level meets with certain inevitable difficulties. First and most baffling is making the problems real and vital to a child of that age. The major family resources used in solving home problems are controlled by the parents in the home and are not at the disposal of the school for teaching management. Since the approach must of necessity be by way of the needs of the pupils, instead of management in the home per se, the pupil learns personal management by sharing in the use of family resources.

Three potential methods of teaching management are open at the grade- and high-school levels, but the teacher herself will need to realize the possibilities for management learning before she can develop a satisfactory teaching method of her own. One method is to integrate management teaching with other subject-matter units; the second is to teach management as a separate unit; and the third is to teach it by means of home projects where they are a part of the general program of work.

AN EXAMPLE OF TEACHING MANAGEMENT AS A PART OF A SUBJECT-MATTER UNIT

The following is a suggestion for integrating management into a subject matter unit.

The unit: *Improving personal appearance.*

The general pupil need: How can I improve my personal appearance?

Teacher's problem: Teaching management along with teaching improvement of personal appearance.

The first step would be the analysis of what resources enter into the decisions that affect the solution of problems of personal appearance. Specifically the material resources are: *money, time, and free goods* (sunshine and air). The human resources would be: *knowledge, abilities, attitude, and human energy*. The influencing resources having been recognized, the next step is for the teacher to organize the content of her course—exercises, activities, reading, talks—in such a way as to show just how

these resources are utilized in accomplishing the objectives laid out.

A good example of the kind of information that can be included in content is found in connection with the teaching of body care as a part of appearance. If the resource money is limited, the human resource knowledge can be used alternatively to take the place of money. More specifically, the knowledge that ordinary inexpensive baking soda on every kitchen shelf is an excellent deodorant, and can be used effectively in controlling body odor, saves the money used to purchase a branded deodorant. Throughout the discussion of improving personal appearance such management learnings can be integrated.

Other subject-matter areas that lend themselves to teaching management are: foods, clothing, home furnishings, housing, family relations, and personal development. In fact, all units in home economics offer opportunity for the development of a certain amount of potential management teaching.

A SUGGESTION FOR TEACHING A HOME-MANAGEMENT UNIT

An earlier statement was made to the effect that family resources are under control of the family and not the school. The two resources that the school has some control over are the time and energy of the individual pupil. These resources would seem to be a logical place to start the management learning, since high-school teachers indicate that their pupils feel the need of making better use of their time and energy.

The first suggestion in teaching management in grade or high school then is to start with the problem of use of time and energy, and to develop a method of approach that is vital to a child of that age. The following unit is merely suggestive.

The unit: *Improving the use of my time and energy.*

The general pupil need: How can I improve my ability to plan and use my physical energy and my time to allow me to do the things I want to do, yet leave some time to help at home?

Teacher's problem: Teaching time and energy management by making the adolescent conscious of the ways by which an individual can improve the use of time and energy through planning and self-direction.

An interest approach based upon conditions in the locality and needs of the individual pupils should be used. Each pupil might be required to do some such problem as follows:

First: Make a skeleton plan of the way in which days are lived.

Time		Activities of each day
	Breakfast	
	Dinner (or lunch)	
	Supper (or dinner)	

Second: Fill in all the activities done daily (a discussion of likes and dislikes of household tasks might come here).

Third: Keep a record of how activities change around this skeleton of activities for two or three days or a week, depending upon pupil interest.

Fourth: Keep a record of a mother's time use for a day (or any other person's).

Fifth: Compare and integrate her own time pattern with that of her mother and her family.

Sixth: Discuss in class the use of family time and energy.

TEACHING MANAGEMENT THROUGH HOME PROJECTS

Teaching management by way of the home project is probably the simplest of all, largely because the pupil is learning in her natural environment and the teaching is entirely individual. In the choice of her project, the cooperation of the mother and family greatly simplifies the teacher's problem. Any project chosen by the pupil can be made to include the development of some managerial abilities. It would seem that the home project would lend itself to the problem of teaching self-evaluation as few other learning experiences do. The following are suggestions of home projects that allow management learning as they are carried out.

Garden and canning project, including planning and planting the garden, caring for the garden, canning and preserving the products for family use.

Yard improvement project, including planning the planting, care of shrubbery and lawn, care of flowers in the garden and for the house.

Personal room project, including planning, redecorating and making or reclaiming furniture and accessories on a money budget.

Wardrobe project, including planning, rejuvenating or making the wardrobe for the succeeding year on a time and money budget.

HOME MANAGEMENT AS A PART OF COLLEGE TRAINING

Home management on the college level is a study of the art and science of using family resources to accomplish goals in family living. Management by this conception becomes a part of training for rational living. Much information is amassed by the student as she progresses through her course work in college. In her training in management, factual knowledge is applied to the solution of practical living problems, thus developing knowledge of relationship. In most other college instruction today the learning situation is largely between student and teacher, even in a laboratory course such as chemistry, foods, or bacteriology, as the student solves assigned problems for the approval of herself and the teacher.

Home management on the college level is taught both in discussion groups and in a laboratory called the home-management house. Most home-management classes include discussion of factors affecting management in the home, principles of good management, and case studies of management problems. As management is taught in the home-management house, the student is forced to solve the problems with which she is confronted, not for herself alone but for a group living and working together. Such an opportunity allows the student to relate her factual information to a living situation and to solve living problems.

Even though the home-management house is not a normal home, it does provide living experiences for a group of students, an adviser (or teacher), and sometimes a baby. The home-management-house family is made up of persons with diverse backgrounds with friendship interest but without the deep affectional relationship of the normal family. Such a group of people living together for a period of time do, however, create work situations and develop adjustment and management problems that require ingenuity, specialized information, and material resources for their solution. Furthermore the resources required in the management of the home-management house are similar to those required in the management of the normal family house in that they include human and material resources, the latter being provided by the fee charges and the college curriculum organization. The ultimate goals of the home-management family are only slightly different from those of the normal family, the difference being largely in emphasis: the individuals in the home-management house strive for personal development, consideration is given to maintaining or improving the health of the group, effort is made to work out a happy, satisfactory time together; and finally the members of the group make their individual contributions to the welfare of the larger social group—the student body. In the home-management house, of course, the methods by which goals are accomplished will receive more emphasis, more study and analysis, than in the normal home.

Other differences between family life in the normal home and in the home-management home are apparent. The items in the

expenditure patterns are not the same, the husband and father are not a part of the group, and usually a common interest must be developed in home management, whereas in the home it is ever present.

The home-management house experience thus can provide an opportunity for the student to plan for solutions of problems using available resources, to try out her plans, to develop skill in self-direction, to guide and help others, and to evaluate her methods of meeting the problems. It also gives her an opportunity, under sympathetic guidance, to improve her methods of meeting the next problems by utilizing the knowledge she has gained in evaluating her previous methods. This is learning management.

When the home-management-house situation does not allow management learning through independent action, there is a question of the amount of learning derived from the experience. Often students upon entering the house are given a pre-set organization of family activity, and standards are set by others with few opportunities for the student to develop her own standards of work, product, or behavior. Under such conditions of "practice," there is little opportunity for making "thinking, skill, information, and appreciation a unitary process."

A STUDENT EVALUATION GUIDE IN LEARNING MANAGEMENT

The following chart, "A Guide to Evaluation and Improvement," has been developed for use by students in a home-management house.⁸ The major learnings are listed under the headings: (1) managerial abilities, (2) techniques, and (3) personal development. The three groupings correspond to the three major areas in homemaking outlined on page 22. Only those qualities of personal adjustment are listed which seem to lend themselves to change in the short period of residence which is provided for in the home-management houses in the majority of institutions offering home-management work.

Three levels of excellence are recognized in this chart. The

⁸ This guide is used currently by the students in the home-management houses at Iowa State College.

guide is most effective when the student is encouraged to use it for evaluating herself when she first enters the home-management house and then, as time and work progress, to evaluate her performance again in order to determine improvement or lack of it. The re-evaluation can occur as often as students and teacher desire. The guide is not a rating scale but a device to help students learn and develop through self-evaluation while having the home-management-house experience.

A Guide to Evaluation and Improvement

For use in home-management houses

Place a check (✓) on the line above the group of phrases which most nearly characterizes your qualities. Underline any phrase which is particularly characteristic. Place comments under "Remarks," such as notations of ways to improve.

	I. Managerial Abilities	Low	Average	High	Remarks	
A. Ability to plan use of available resources To recognize problems	Unable to see or sense problems of self or of the group. Unaware of the details involved in the problem.	Senses some problems. May see problem of self but not of group, or vice versa.		Keen sensitivity to problems of group and of self.		
To determine objectives for solving problems	Unable to formulate purposes. Too ready to ask what teacher wants to have done.		Able to formulate aims for certain types of problems, but not all. May set some desirable goals for all problems, but not all ends for some problems.		Able to forecast and formulate ends she wishes to accomplish.	
To seek possible solutions				Does not readily apply knowledge. Not able to find solutions for some types of problems.	Rapid application of knowledge to solution of problem. Thorough in seeking information from available sources.	

B. Ability to carry out plans To direct	Unable to give clear directions. Inadequate plans. Has difficulty in adjusting plans.	Can give directions when not under pressure. Usually clear, though not always.	Can give clear, concise directions in a pleasant manner, even when under pressure.	
To guide	Unable to see difference between guidance and directing. "Bossy."	Sometimes, though not always, able to lead people to accomplishment. Sometimes "bossy."	Keen ability to lead people in getting activities accomplished.	
To coordinate	Sees each responsibility in home management as an isolated unit rather than as part of a whole.	Sees some relationship between various responsibilities. May place standard of performance above human value.	Sees each part of the home-management experience in relation to living as a whole. Keeps happy home living as a goal.	
C. Ability to evaluate plans and performance	Does not see value of an analysis of past experiences. Unable to be objective. Tends to overestimate self.	Sees value of some analysis. Is usually objective and analytical, but may not carry analysis to completion.	Able to analyze and judge clearly in an objective manner. Sees value of analyzing past experiences.	
D. Ability to profit from evaluation of plan and performance	Does not change method or behavior after evaluation. Very little carry-over of learning from one experience to another.	Slow to change. Tends to think suggestions are not meant for self. Carry-over in some types of experiences.	Is willing to change method and behavior after evaluation. Much carry-over of learning from one experience to another.	

A GUIDE TO EVALUATION AND IMPROVEMENT—Continued

II. Techniques	Low			Average			High			Remarks
	Low	Moderate	High	Low	Moderate	High	Low	Moderate	High	
Food preparation	Little knowledge of principles of food preparation. Frequent failures. Food often unappetizing.	Fair degree of knowledge of principles. Some failures.					Observes cookery principles. Appetizing and attractive food served at right temperature.			
Food service	Deficient in knowledge of principles of food service. Requires constant supervision.	Fair knowledge of principles. Can carry out service if help is given in planning. Sometimes forgets.					Excellent standards of service. Solves own problems. Self-confident, calm while serving.			
Food care and storage	Wasteful. Little knowledge of how foods should be stored or cared for.	Has knowledge of how some foods should be stored and cared for. Not consistent in practice.					Economical and intelligent in care and storage. Good system at all times.			
Buying	Poorly planned market order; does not recognize signs of quality. Does not know quantities to buy. Overspends.	Vague as to quantity to buy and quality of some products. Usually uses money to advantage.					Specific as to amounts and quality. Clear and concise in giving order. Money used to advantage.			
Laundering and care of linen	Finished product not clean. Wastes time and energy during the process. Does not use linen wisely. Careless of storage of linen.	Products in good condition if not too difficult to launder. Sometimes extravagant in use of linen. Sometimes orderly in storing linen.					Product clean. Efficient in process. Uses linen supply wisely. Orderly arrangement of linen in storage.			

Making the home livable (1) Housecleaning, care of own room	Disorderly in own room and about the house. Not thorough in cleaning.	Quite orderly in own room and about the house. Straightens misplaced things.	An orderly person, thorough in cleaning.
	(2) Artistic arrangements	Fair knowledge of art principles, but lacks individuality and cleverness.	Good sense of art principles. Simple, good taste. Is original.
Child care and training	Very little sense of balance, rhythm, and harmony of color or form.	Careful of some parts of infant's care. Inconsistent. Sometimes lacks judgment. Enjoys only attractive children.	Conscientious and careful throughout. Enjoys and appreciates little children. Good judgment.
Keeping intelligible records	Careless in preparation of formula. Neglects baby. Uses little judgment. Does not enjoy children.	Sometimes procrastinates. Sometimes slow. Quite neat and accurate.	Neat and accurate records, always up-to-date, promptly turned in.

A GUIDE TO EVALUATION AND IMPROVEMENT—Continued

	Low	Average	High	Remarks
III. Personal Development				
A. Social qualities Refinement and courtesy	Lacks refinement. Rude and inconsiderate. Uncommunicative at times. Arouses resentment and opposition.	Fails to observe some social conventions. Usually considerate. Sometimes offends or irritates. Sometimes lacks tact.	Tactful, gracious, considerate of others. Conduct above reproach at all times. Contributes to family conversation.	
Cooperativeness				
	Not willing to assume full share of family responsibilities. Cannot work well with others.	Assumes share of family responsibilities fairly well. Works quite well with others. Sometimes expects too much credit.	Works harmoniously with others. Carries own responsibility willingly, regardless of reward.	
Dependability and promptness				
	Satisfied merely to get by. Seldom on time, forgetful. Shuns responsibility.	Can usually be depended upon to discharge own responsibilities. Usually on time.	Assumes responsibilities and quickly carries them out. Keeps promises and appointments. Prompt.	
Adaptability				
	Adjusts slowly to new environment. Unwilling to modify plans and opinions.	Tries to adjust, but is not always successful.	Adjusts readily and pleasantly to new situations and environment.	
Initiative				
	Needs constant help and advice. Never takes the lead.	Sometimes takes the lead. Does not often find new ways to do things.	Willing to take the lead. Does more than is required. Finds new methods.	

Poise	Ill at ease, easily upset.	Usually at ease. Sometimes upset.		Apparently at ease and composed.			
Speech and voice	Poor English. Displeasing voice.	Quite pleasing voice. Usually uses good English.		Good English. Pleasing, well-modulated voice. Interesting expression.			
B. Physical qualities Grooming	Fails to observe personal hygiene. Hair, nails, clothing unkempt. Inappropriately dressed.	Usually observes personal hygiene. Quite neat and well dressed.		Personal hygiene above reproach. Always neat and well groomed. Dresses appropriately and in good taste.			
Vitality	Listless. Habitually tired, or complains of being tired.		Moderately active. Sometimes listless.		Radiant and full of life and energy.		
Posture	Round shoulders, protruding abdomen, head forward. Awkward standing or sitting position.		Usually good carriage except when fatigued.		Graceful, erect carriage.		
C. Mental qualities Open-mindedness	Resents suggestions. Does not seek criticism. Is utterly discouraged by or misinterprets criticism.		Usually accepts, but does not always profit by criticism. Sometimes has resentful attitude.		Invites, welcomes, and grows through criticism.		

A GUIDE TO EVALUATION AND IMPROVEMENT—Continued

		Low	Average	High	Remarks
III-Concluded					
Breadth of interest	Narrow. Makes no effort to have varied interests.	Limited number of interests. Attempts to make other contacts.		Interested in varied types of activities and people.	
Ingenuity	Shows little imagination. Bewildered in new situations.	Solves problems with a degree of originality. Sometimes acts creatively.		Clever in devising solutions. Rapid association of ideas. Shows creative imagination.	
Self-management	Is not a master of self. Is emotional and temperamental.	Usually stable. Sometimes temperamental.		Well balanced. Shows self-control in majority of cases.	
Judgment	Makes erratic decisions. Impractical, prejudiced.	Sometimes biased and impractical.		Rules out prejudice. Practical, wise decisions.	
Sense of values	Rather indefinite concept of life and what it is all about. No definite goals.	Unable to apply ideas of fundamental values in living. Tries to improve. Tends to idealize rather than to face facts.		Clearly defined goals. Workable philosophy of life. Faces facts of life.	
Disposition	Pessimistic. No sense of humor, moody, hypercritical.	Usually happy and cheerful. Sometimes complains.		Optimistic. Fully developed sense of humor. Happy and cheerful.	

ADDITIONAL REFERENCES

These references will be found useful to students and teachers of home management. Although many of these books relate to more than one chapter, each book is listed only once. The references are largely confined to books and research publications.

Current publications of interest are:

Journal of Home Economics
Consumers' Guide
Monthly Labor Review
Consumers' Research Bulletins
Consumer Union Bulletins
Consumer Education Service, American Home Economics Association
Publications of Consumer Institute, Stephens College, Columbia, Missouri
Architectural Record
The Architectural Forum

CHAPTER I

EVERETT, W. G., *Moral Values*, New York: Henry Holt and Company, 1918.
GROSS, IRMA H., and LEWIS, MARY E., *Home Management*, New York: F. S. Crofts and Company, 1938, pp. 122-139.
JOAD, C. E. M., *Guide to the Philosophy of Morals and Politics*, New York: Random House, 1937, Chapter XII.
PERRY, R. B., *General Theory of Value*, New York: Longmans, Green and Company, 1926, Chapters VI-VIII.
ROBINSON, D. S., *Introduction to Living Philosophy*, New York: Thomas Y. Crowell Company, 1935, Chapter I.
URBAN, W. M., *Fundamentals of Ethics*, New York: Henry Holt and Company, 1930, pp. 16-20.
WHEELRIGHT, PHILLIP, *Ethics*, New York: Doubleday, Doran and Company, Inc., 1935.

CHAPTERS II TO IV

BAKER, R. E., *Marriage and the Family*, New York: McGraw-Hill Book Company, 1939, Chapter I.
BURGESS, E. W., and COTTRELL, L. S., *Prediction of Success or Failure in Marriage*, New York: Prentice-Hall, Inc., 1939.

CHAFFEE, GRACE F., in *Modern Marriage* edited by MOSES JUNG, New York: F. S. Crofts and Company, 1940, Chapters I, II.

FOLSOM, JOSEPH K., *Plan for Marriage*, New York: Harper and Brothers, 1938.

HART, H. H. and E. B., *Personality and the Family*, Boston: D. C. Heath and Company, 1935, Chapter VIII.

HART, J. K., *Mind in Transition*, New York: Covici, Friede, Inc., 1938.

LEVY, JOHN, and MUNROE, RUTH, *The Happy Family*, New York: Alfred A. Knopf, 1938.

SCHEINFELD, AMRAM, *You and Heredity*, New York: Frederick A. Stokes and Company, 1938.

SCHNACKEL, H. G., *The Art of Business Thinking*, New York: John Wiley and Sons, 1930.

SHELDON, OLIVER, *Philosophy of Management*, New York: Sir Isaac Pitman and Sons, 1924, Chapters II, VIII.

TERMAN, LEWIS M., *Psychological Factors in Marital Happiness*, New York: McGraw-Hill Book Company, 1938.

VEBLEN, T., *The Instinct of Workmanship*, New York: The Macmillan Company, 1914, Chapters I, II.

CHAPTER V

CRAWFORD, INA Z., "The Use of Time by Farm Women," *Idaho Agric. Expt. Sta. Bul.* 146, 1927.

KNEELAND, HILDEGARDE, "Time Spent in Work by Farm Women," *U. S. Dept. Agric. Yearbook*, 1928, pp. 620-622.

"Is the Modern Housewife a Lady of Leisure?" *Survey-Graphic* (June, 1929), p. 301.

RANKIN, J. O., "The Use of Time in Farm Homes," *Nebr. Agric. Expt. Sta. Bul.* 230, 1928.

RICHARDSON, J. E., "The Use of Time by Rural Homemakers," *Mont. Agric. Expt. Sta. Bul.* 271, 1933.

WHITTEMORE, MARGARET, and NEIL, BERNIECE, "Time Factors in the Business of Homemaking in Rural Rhode Island," *R. I. Agric. Expt. Sta. Bul.* 221, 1929.

CHAPTER VI

GILBRETH, F. B. and L. M., *Fatigue Study*, New York: Sturgis and Walton Company, 1916.

GILBRETH, LILLIAN A., *The Homemaker and Her Job*, New York: D. Appleton and Company, 1927, Chapter VII.

GOLDMARK, JOSEPHINE, *Fatigue and Efficiency*, New York: Russell Sage Foundation, 1912.

GULICK, L. H., *Mind and Work*, New York: Doubleday, Page and Company, 1908, Chapters VIII-XI.

HAGGARD, H. W., and GREENBERG, L. A., *Diet and Physical Efficiency*, New Haven: Yale University Press, 1935.

HILL, A. V., *Living Machinery*, New York: Harcourt, Brace and Company, 1927.

MYERS, C. S., *Industrial Psychology*, New York: The People's Institute Publishing Company, 1925.

MYERSON, A., "Remedies for the Housewife's Fatigue," *Ladies' Home Journal*, Vol. 47 (March, 1930), p. 115.

The Nervous Housewife, Boston: Little, Brown and Company, 1927.

ROETHLESBERGER, F. G., and DICKSON, W. J., *Management and the Worker*, Cambridge: Harvard University Press, 1940.

RYAN, A. H., "The Tired Housewife," *Ladies' Home Journal*, Vol. 50, No. 9 (September, 1933), pp. 26, 42.

CHAPTERS VII TO VIII

Household Management and Kitchens. The President's Conference on Home Building and Home Ownership, Washington, D. C., 1932.

KNEELAND, HILDEGARDE, "Scheduling the Homemaker's Time," *Yearbook of Agriculture*, 1927, pp. 380-381.

CHAPTERS IX TO XI

BLACKBURN, J. M., "The Acquisition of Skill. An Analysis of Learning Curves," Great Britain Industrial Health Research Board, London H.M. Stationery Office, 1936.

COX, J. W., "Some Experiments on Formal Training in the Acquisition of Skill," *Brit. J. Psychol.*, Vol. 24 (1933), pp. 67-87.

DAVIS, R. A., *Psychology of Learning*, New York: McGraw-Hill Book Company, 1935.

DUNLAP, KNIGHT, *Habits: Their Making and Unmaking*, New York: Liveright Publishing Corporation, 1932.

An Educational Program for Household Employment, Trade and Industrial and Home Economics Education, U. S. Dept. Interior, 1935.

HARTSON, L. D., "Analysis of Skilled Movements," *Personnel Journal*, Vol. 11, No. 1 (June, 1932), pp. 28-43.

Household Employment Problems, A Handbook for Round-Table Discussions Among Household Employers, Home Economics Education, U. S. Dept. Interior, 1937.

MURSELL, JAMES L., "The Miracle of Learning," *Atlantic Monthly*, Vol. 155, No. 6 (June, 1935), pp. 735-741.

PEAR, TOM H., *Skill in Work and Play*, London: Methuen and Company, Ltd., 1924.

STODDARD, G. D., "The Family Habits of Work," *Natl. Parent-Teacher*, Vol. 32, No. 7 (March, 1938), pp. 10-11.

CHAPTERS XII TO XVII

ABEL, MARY HINMAN, *Successful Family Life on the Moderate Income*, J. B. Lippincott Company, 1927.

BIGELOW, HOWARD F., *Family Finance*, Philadelphia: J. B. Lippincott Company, 1936.

COLES, JESSIE, *The Consumer-Buyer and the Market*, New York: John Wiley and Sons, 1938, Chapters XVI-XVIII.

"Family Income and Expenditures," Bureau of Home Economics, U. S. Dept. Agric., Farm Series, *Misc. Pub.* 356, 383; Urban Series, *Misc. Pub.* 339, 345, 370, 375.

"Family Income and Expenditure," Bureau of Labor Statistics, U. S. Dept. Labor, *Bulletins* 642 to 649.

HARDY, CHARLES D., *Consumer Credit and Its Use*, New York: Prentice-Hall, Inc., 1938.

HOYT, ELIZABETH ELLIS, *Consumption in Our Society*, New York: McGraw-Hill Book Company, 1938, Chapters XXII-XXV.

MOULTON, HAROLD G., *Financial Organization and the Economic System*, New York: McGraw-Hill Book Company, 1938.

NEIFELD, M. R., *Personal Finance Comes of Age*, New York: Harper and Brothers, 1939.

Cooperation Consumer Credit, New York: Harper and Brothers, 1936.

Quantity-Cost Budgets: Chicago Council of Social Agencies, *The Chicago Standard Budget for Dependent Families*, 1937; Cleveland Associated Charities, *A Suggested Budget for Families of Small Incomes*, 1935; United States Work Progress Administration, Division of Social Research, *Quantity Budgets of Goods and Services Necessary for a Basic Maintenance Standard of Living and for Operation under Emergency Conditions*, Bulletin 21, 1936.

RICHARDS, ELLEN H., *The Cost of Living*, New York: John Wiley and Sons, 1905.

VAILE, ROLAND S., and **CANOYER, HELEN G.**, *Income and Consumption*, New York: Henry Holt and Company, 1938.

WAITE, WARREN C., and **CASSADY, RALPH, JR.**, *The Consumer and the Economic Order*, New York: McGraw-Hill Book Company, 1939, Chapters III, V, XII, XIII.

WILDER, ERNESTINE, *Consumer Credit Bibliography*, New York: Prentice-Hall, Inc., 1938.

CHAPTERS XVIII TO XX

ASHBY, WALLACE, "Farmhouse Plans," U. S. Dept. Agric., *Farmers' Bulletin* 1738, 1935.

ASHBY, WALLACE, and **NASH, WALTER H.**, "Modernizing Farmhouses," U. S. Dept. Agric., *Farmers' Bulletin* 1749, 1935.

BAUER, CATHERINE, *Modern Housing*, Boston: Houghton Mifflin Company, 1934.

"Family Housing and Facilities, (Five Regions)," Consumer Purchases Study, U. S. Dept. Agric., *Miscellaneous Publication* 399.

"Farm Kitchen Planning," *Oregon Extension Bulletin* 504, Home Economics Series, 1937.

FIELD, DOROTHY J., *The Human House*, Boston: Houghton Mifflin Company, 1939, Third Edition, revised.

GRAY, GRETA, *House and Home*, Philadelphia: J. B. Lippincott Company, 1935.

"How Safe is the Home?" *Architectural Record*, No. 5 (May, 1941), p. 67.

NEWCOMB, REXFORD, and FOSTER, WILLIAM, *Home Architecture*, New York: John Wiley and Sons, 1932.

PATTERSON, J., and others, "Better Farm and Home Lighting," *Oregon Extension Bulletin* 531, Home Economics Series, 1939.

PHELAN, VINCENT B., "Care and Repair of the House," U. S. Dept. Commerce, Bureau of Standards, *Building and Housing Publication* 15, 1931.

Planning Your Farm Home, United States Gypsum Company, Chicago, 1941.

SCHULTZ, HAZEL, *Housing and the Home*, New York: D. Appleton-Century Company, 1939.

Small Houses, U. S. Dept. Agric., Farm Security Administration.

SOOY, LOUISE PINKNEY, and WOODBRIDGE, VIRGINIA, *Plan Your Own Home*, Stanford University Press, Stanford University, 1940.

Storage Spaces, for Clothing and Bedding, Home Economics Extension Service, College of Agriculture, University of Wisconsin, 1939.

WAUGH, ALICE, *Planning the Little House*, New York: McGraw-Hill Book Company, 1939.

WHITMAN, ROGER B., *First Aid to the Ailing House*, New York: McGraw-Hill Book Company, 1938.

WICHERS, H. E., "Designs for Kansas Farm Homes," Kansas State College, *Engg. Expt. Sta. Bul.* 23, 1931.

WILLIS, ROYAL BARRY, *Houses for Good Living*, New York: Architectural Book Publishing Company, Inc., 1940.

WILSON, MAUD, "Housing Requirements of Farm Families in the United States," U. S. Dept. Agric., *Miscellaneous Publication* 322, 1939.

"Planning the Willamette Valley Farmhouse for Family Needs," *Ore. State Agric. Expt. Sta. Bul.* 320, 1933.

WILSON, MAUD, and WELLS, LAURA, "House Planning Ideas of Oregon Rural Women," *Ore. State Agric. Expt. Sta. Bul.* 369, 1940.

CHAPTER XXI

BALDERSTON, L. RAY, *Housewifery*, Philadelphia: J. B. Lippincott and Company, 1936, Revised edition.

Feeley, Donald Smith, *Planning the Arrangement of Furniture*, Home Information, Better Homes in America, Purdue University, Lafayette, Indiana, 1937.

Furniture, Its Selection and Use, National Committee on Wood Utilization, U. S. Dept. Commerce.

GOLDSTEIN, HARRIET and **VETTA**, *Art in Everyday Life*, New York: The Macmillan Company, Third Edition, 1940.

HESS, K. P., "Blankets, Sheets, and Towels for the House," *Bul. 281*, Extension Service, Kansas State College, 1938.

"How Economically Can I Furnish a Low Cost House?" *Architectural Record*, Vol. 79 (February, 1936), p. 126.

Le MAIRE, ELEANOR, *Furnishing a Five Room House on a Budget of \$1,200*, Home Information, Better Homes in America, Purdue University, Lafayette, Indiana.

O'BRIEN, RUTH, and **HOLBROOK, HELEN S.**, "Methods and Equipment for Home Laundering," *Farmers' Bulletin 1497*, Revised, 1937.

O'BRIEN, RUTH, and **WARD, MEDORA M.**, "Present Guides for Household Buying," U. S. Dept. Agric., *Miscellaneous Publication 193*, Revised, 1936.

PEET, LOUISE J., and **SATER, LEONORE E.**, *Household Equipment*, New York: John Wiley and Sons, Revised, 1940.

RUTT, ANNA H., *Home Furnishing*, New York: John Wiley and Sons, 1935.

WRIGHT, FLORENCE E., "Reconditioning Furniture," New York State College of Home Economics at Cornell University, *Extension Bulletin 256*, 1933.

CHAPTERS XXII TO XXV

COLES, JESSIE V., "Consumer Demand for Selected Articles of Clothing," *Missouri Agric. Expt. Sta. Bul. 300*, 1939.

"Family Expenditures for the Automobile and Other Transportation" (Five Regions), Consumer Purchases Study, *Miscellaneous Publication 415*, 1941.

JONES, ALMA H., *Family Good Times*, Extension Service, Iowa State College, 1938.

Law and Contemporary Problems, Vol. 6, No. 4 (August), 1939: I. S. **FALK**, "An Introduction to National Problems of Medical Care," pp. 497-506; **MARTIN BROWN**, "American Experimentation in Meeting Medical Needs by Voluntary Action," pp. 507-515;

MAURICE J. NORBY, "Hospital Service Plans: Their Contact, Provisions, and Administrative Procedures," pp. 545-558.

MONROE, DAY, KYRK, HAZEL, and STONE, U. B., *Food Buying and Our Markets*, New York: M. Barrows and Company, 1938.

Public Affairs Committee, Inc., Pamphlets (popular treatment): *Doctors, Dollars and Disease; Who Can Afford Health; Toward a Healthy America; This Problem of Food*.

ROSE, MARY SWARTZ, *Feeding the Family*, New York: The Macmillan Company, Fourth Edition, 1940.

TIFFANY, MARGARET, "Clothing Consumption of 299 Villages and 551 Families in Vermont," *Vermont Agric. Expt. Sta. Bul.* 451, 1939.

TODOROFF, ALEXANDER, *Food Buying Today*, Chicago: The Grocery Trade Publishing House, 1938.

WILLIAMS, PIERCE, *The Purchase of Medical Care through Fixed Periodic Payments*, New York: National Bureau of Economic Research, Inc., 1932.

Yearbook of Department of Agriculture, 1939, 1940.

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FOR FAMILY INCOME, SAVINGS, AND EXPENDITURES BY MONTHS**

194—

Month	Income	Savings	Fixed Savings and Expenses			Variable Expenses			Surplus for High- Expense Months
			Savings		Housing	Food	Clothing	Operating Expenses, Transporta- tion	
			Life Insurance	Payments on Home	Rent or Taxes, Interest, Upkeep	Protective Insurance, Income Tax		Furnishings and Equipment	
January									
February									
March									
April									
May									
June									
July									
August									
September									
October									
November									
December									
Yearly Total									

453

Pauline Nickel
Jean Mair Dorsay

Sheet _____
A YEARLY PLAN
 FOR SAVING AND SPENDING A FAMILY INCOME BY MONTHS
 194—

Month	Estimated Income	Estimated Savings (1)	Fixed Savings and Expenses			Estimated Total of All Variable Expenses (3)	Total Savings and Expenses, Columns 1-2-3	Deficit in High-Expense Months	Surplus in Low-Expense Months to Take Care of High-Expense Months
			Housing	Life Insurance	Payments on Home				
January									
February									
March									
April									
May									
June									
July									
August									
September									
October									
November									
December									
Yearly Total									

Pauline Nickel
 Jean Mair Derby

AMORTIZATION TABLE OF BUILDING AND LOAN MORTGAGE
Showing how a \$1,000 loan at 6 per cent interest is retired in
11 years and 7 months by monthly payments of \$10 each.*

Month	Outstanding Principal During Month	Monthly Payment	Applied to Interest	Applied to Principal	Principal Due after Installment Payment
First.....	\$1,000.00	\$10.00	\$5.00	\$5.00	\$995.00
Second.....	995.00	10.00	4.98	5.02	989.98
Third.....	989.98	10.00	4.95	5.05	984.93
Fourth.....	984.93	10.00	4.93	5.07	979.86
Fifth.....	979.86	10.00	4.90	5.10	974.76
Sixth.....	974.76	10.00	4.88	5.12	969.64
Seventh.....	969.64	10.00	4.85	5.15	964.49
Eighth.....	964.49	10.00	4.83	5.17	959.32
Ninth.....	959.32	10.00	4.80	5.20	954.12
Tenth.....	954.12	10.00	4.77	5.23	948.89
Eleventh.....	948.89	10.00	4.75	5.25	943.64
Twelfth.....	943.64	10.00	4.72	5.28	938.36

Year	Total of Monthly Payments	Applied to Interest	Applied to Principal	Principal Due at End of Year
First.....	\$120.00	\$58.36	\$61.62	\$938.36
Second.....	120.00	54.56	65.44	872.92
Third.....	120.00	50.55	69.45	803.47
Fourth.....	120.00	46.25	73.75	729.72
Fifth.....	120.00	41.71	78.29	651.44
Sixth.....	120.00	36.89	83.11	568.33
Seventh.....	120.00	31.76	88.44	480.09
Eighth.....	120.00	26.32	93.68	386.41
Ninth.....	120.00	20.52	99.48	286.93
Tenth.....	120.00	14.40	105.60	181.33
Eleventh.....	120.00	7.89	112.11	69.22
Twelfth (7 months)	70.00	1.44	68.56	0.66†

* John M. Gries and Thomas M. Curran, *Present Home Financing Methods*, p. 17, U.S. Dept. of Commerce, Bureau of Standards, Division of Building and Housing, BH 12, 1928.

† Principal due at end of 7 months.

Total interest paid during loan period, \$390.65.

TABLE OF REDEMPTION VALUES OF UNITED STATES SAVINGS BONDS

Issue Price	\$18.75	\$37.50	\$75.00	\$375.00	\$750.00
Redemption values after the issue date:					
First year.....	\$18.75	\$37.50	\$75.00	\$375.00	\$750.00
1 to 1½ years.....	19.00	38.00	76.00	380.00	760.00
1½ to 2 years.....	19.25	38.50	77.00	385.00	770.00
2 to 2½ years.....	19.50	39.00	78.00	390.00	780.00
2½ to 3 years.....	19.75	39.50	79.00	395.00	790.00
3 to 3½ years.....	20.00	40.00	80.00	400.00	800.00
3½ to 4 years.....	20.25	40.50	81.00	405.00	810.00
4 to 4½ years.....	20.50	41.00	82.00	410.00	820.00
4½ to 5 years.....	20.75	41.50	83.00	415.00	830.00
5 to 5½ years.....	21.00	42.00	84.00	420.00	840.00
5½ to 6 years.....	21.25	42.50	85.00	425.00	850.00
6 to 6½ years.....	21.50	43.00	86.00	430.00	860.00
6½ to 7 years.....	21.75	43.50	87.00	435.00	870.00
7 to 7½ years.....	22.00	44.00	88.00	440.00	880.00
7½ to 8 years.....	22.50	45.00	90.00	450.00	900.00
8 to 8½ years.....	23.00	46.00	92.00	460.00	920.00
8½ to 9 years.....	23.50	47.00	94.00	470.00	940.00
9 to 9½ years.....	24.00	48.00	96.00	480.00	960.00
9½ to 10 years.....	24.50	49.00	98.00	490.00	980.00
Maturity value.....	25.00	50.00	100.00	500.00	1,000.00

CASH AND LOAN VALUE YEAR BY YEAR OF THREE TYPES OF INSURANCE
POLICIES COMPUTED AT RATE FOR AGE 23*Ordinary Life \$1,000*

At 23 years, annual premium \$22

Cash or Loan Value	Extended Insurance Years Days		Paid-up Insurance	Years
1	0	47	3	2
16	2	22	45	3
23	2	355	63	4
32	4	62	86	5
41	5	136	109	6
51	6	262	133	7
61	8	20	156	8
71	9	135	179	9
81	10	232	200	10
214	19	356	441	20
369	19	191	628	30

20-Pay Life \$1,000

At 23 years, annual premium \$30.80

4	..	187	12	2
35	4	248	97	3
54	7	153	147	4
73	10	100	196	5
93	13	130	246	6
114	16	212	296	7
135	19	220	345	8
157	22	143	394	9
180	24	311	444	10
480	..	...	1000	20
578	..	...	...	..

20-Year Endowment

At 23 years, premium regular, annual \$48.96

Cash	Years	Amount Paid	Paid-up Endowment	Years
36	4	316	59	2
83	12	86	133	3
121	16	290	188	4
161	15	107	244	5
202	14	181	298	6
245	13	253	352	7
289	12	322	405	8
336	11	390	458	9
383	10	453	509	10
920	1	948	948	19
1000	..	...	1000	20

CHECK SHEET FOR COMMUNITY HEALTH SURVEY*

Extension Service Community.....
 Iowa State College

Tomorrow's Community Date, 1st Scoring.....
 Check Sheet No. 5†

Date, 2nd Scoring.....

HEALTH

This check sheet can be used in two ways:

1. For discussion groups and high-school or junior-college classes it provides a study outline.
2. For community planning committees it provides an instrument with which (a) local community problems can be diagnosed, (b) needs defined, and (c) new programs initiated.

First		
Score‡		Change§

A. Health Organization

1. The community is participating in a county or district health unit program, which is coordinated with state and national health programs to yield "parity between health protection for rural and urban residents".....
2. Health consciousness is developed through publicity and the work of local groups so that public opinion supports isolation measures and other health regulations.....
3. The community participates in an organized program for the control of tuberculosis.....
4. A health library including the State Department of Health's "shelf of health literature" is maintained in the high-school or community library.....
5. All births and deaths are registered in accordance with state law and records are used in community health projects.....
6. Nurse and hospital facilities are available at reasonable cost.....
7. Competent medical service is available to all persons in the community.....

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

* Permission of W. H. Stacy, Assistant Professor of Rural Sociology, Extension Service Iowa State College, Ames, Iowa.

† Ten Tomorrow's Community check sheets are available. These include outlines for considering (1) Government, (2) Education, (3) Religious Life, (4) Recreation, (5) Health, (6) Home Activities, (7) Farm Industry, (8) Trade Services, (9) Conservation, and (10) Community Organization.

‡ Code for scoring: A = perfect, or more than 95 per cent of all that could be desired; B = good, or 86 to 95 per cent satisfactory; C = fair, or 76 to 85 per cent satisfactory; D = poor, or 50 to 75 per cent satisfactory; E = less than 50 per cent satisfactory.

§ In second scoring indicate changes during the interim: + = improved; O = same, no change; -- = declined.

	First Score‡	Change§
8. Majority of adults consult doctor annually for health examination.....	_____	_____
B. Sanitation		
1. All public buildings, churches, schools, and recreation halls are regularly cleaned, well ventilated, screened, and free from pests.....	_____	_____
2. Homes are kept well screened and free from accumulations of rubbish that may produce undesirable odors and breed insects and pests.....	_____	_____
3. Town has satisfactory garbage and sewage disposal systems.....	_____	_____
4. Public water supply is adequate and frequent tests show it to be bacteriologically safe.....	_____	_____
5. Private wells are located and constructed to assure clean water supply for homes.....	_____	_____
6. During the past year there have been no cases of typhoid fever (commonly carried by water, milk, sewage or infected foods).....	_____	_____
7. Hogs are being raised under sanitary precautions to prevent ascaris (round worm) and trichinæ-infection.	_____	_____
8. Precautions are taken, through education, for the prevention of undulant fever in man through the handling of hogs, cows or other animals affected with brucella infection.....	_____	_____
C. Food Supply		
1. Milk supplied by commercial dairies is clean and pasteurized.....	_____	_____
2. Cows in all dairy herds are tested for tuberculosis and bangs disease. Individuals and concerns handling milk comply with other health regulations.....	_____	_____
3. Milk is available and is used in sufficient quantities by young and old.....	_____	_____
4. Fruit and vegetables (fresh or canned) are generally available throughout all seasons. Gardens are ample to provide vegetables for fresh use and for canning and storing.....	_____	_____
5. Places where foods are prepared and served to the public are inspected and kept in sanitary condition..	_____	_____
D. Prenatal Care		
1. Community facilities for prenatal instruction are available to all women of the community by (a) medical organization, (b) visiting nurse, (c) adult	_____	_____
<p>‡ Code for scoring: A = perfect, or more than 95 per cent of all that could be desired; B = good, or 86 to 95 per cent satisfactory; C = fair, or 76 to 85 per cent satisfactory; D = poor, or 50 to 75 per cent satisfactory; E = less than 50 per cent satisfactory.</p> <p>§ In second scoring indicate changes during the interim: + = improved; O = same, no change; -- = declined.</p>		

		First Score†	Change‡
	health education classes or (d) programs of women's organizations.....	_____	_____
E. Infant and Pre-School Child Care			
1. Community provisions are made for assistance to mothers in the care of infants and pre-school children, such as (a) state or medical organization clinics, (b) visiting nurse, (c) adult health education classes, or (d) programs of women's organizations...		_____	_____
2. Children are given physical examinations before they enter school.....		_____	_____
3. Children are immunized against smallpox and diphtheria before entering school.....		_____	_____
F. School Health			
1. All school buildings and grounds are inspected at least annually by a trained and sanitary inspector (checking the sanitary equipment including water supply, sewage-disposal and hand-washing facilities, classroom equipment and furnishings including lighting, window shades, blackboards, walls, floors, ceilings, ventilation, temperature regulation and desks) ..		_____	_____
2. Community employs a school or other nurse to help with inspections and physical examinations and assist in maintaining high health standards among the children.....		_____	_____
3. Physician employed part-time or on other basis by the school who by physical examinations and other practical means helps maintain high health standards in the school		_____	_____
4. School teachers have annual physical examination. School teachers practice health habits and set healthful examples to the children.....		_____	_____
5. Teachers in elementary schools are qualified by training to teach authentic health information and conduct health education programs each week		_____	_____
6. High school provides for all students such courses as:			
a. Health education		_____	_____
b. Hygiene.....		_____	_____
c. Home nursing (for girls).....		_____	_____
d. Infant care (for girls).....		_____	_____
e. Prenatal care (for girls).....		_____	_____
f. First aid.....		_____	_____
7. Classes in health education are available for adults..		_____	_____

† Code for scoring: A = perfect, or more than 95 per cent of all that could be desired; B = good, or 86 to 95 per cent satisfactory; C = fair, or 76 to 85 per cent satisfactory; D = poor, or 50 to 75 per cent satisfactory; E = less than 50 per cent satisfactory.

‡ In second scoring indicate changes during the interim: + = improved; O = same, no change; -- = declined.

	First Score†	Change‡
8. School children are immunized against diphtheria and smallpox.....	_____	_____
G. Health Programs of Organizations		
1. 4-H clubs emphasize health:		
a. 4-H girls include in their program posture training, first aid, accident prevention, proper nutrition, health examinations, and good health habits.....	_____	_____
b. 4-H boys include in their program first aid, accident prevention, health examinations, and good health habits.....	_____	_____
2. Boy Scouts and Campfire Girls provide first aid, health examinations, and health habits programs.....	_____	_____
3. American Legion and Legion Auxiliary sponsor safety and better health projects.....	_____	_____
4. Red Cross quotas are met and public is acquainted with Red Cross program.....	_____	_____
5. Organizations are making effective use of available resources and cooperate with each other in developing health projects.....	_____	_____

Summaries

Number of items of each Grade: A _____ B _____ C _____ D _____ E _____
 Members of scoring committee: _____

Activities recommended by scoring committee: _____

Activities adopted by community council: _____

Changes noted in second scoring: Improved.
 No change. Declined.

† Code for scoring: A = perfect, or more than 95 per cent of all that could be desired; B = good, or 86 to 95 per cent satisfactory; C = fair, or 76 to 85 per cent satisfactory; D = poor, or 50 to 75 per cent satisfactory; E = less than 50 per cent satisfactory.

‡ In second scoring indicate changes during the interim: + = improved; O = same, no change; -- = declined.

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